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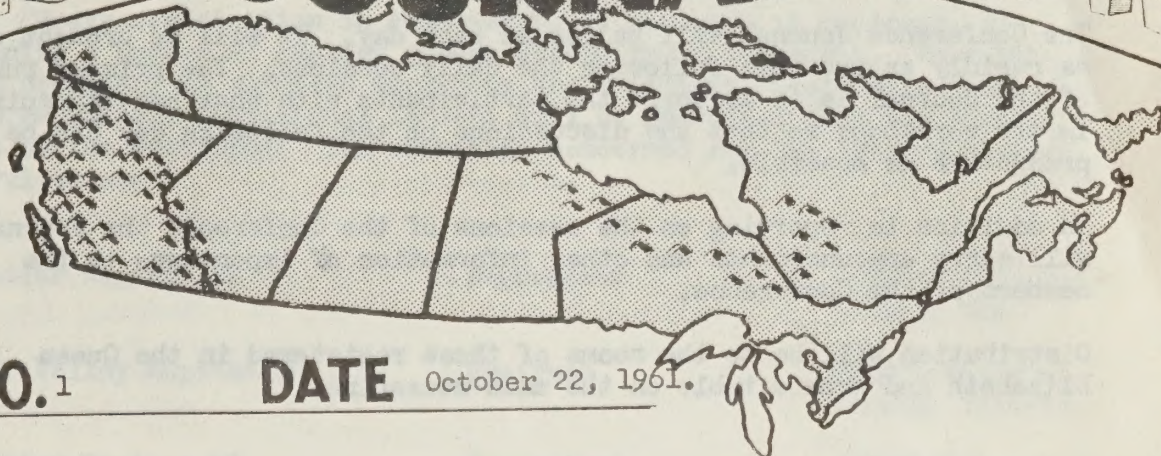


Canada. Ministry of State for Urban
Affairs.

[Statements and speeches]

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RESOURCES FOR TOMORROW JOURNAL

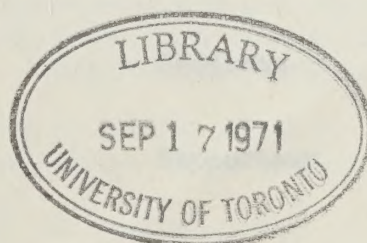


NO. 1

DATE October 22, 1961.

Welcome to "Resources For Tomorrow"! Two years of work and planning are now coming together in a nexus of thought and discussion. The Steering Committee, the Advisory Committees, the authors of background papers, the members of the Secretariat, and the members of the workshop leadership teams have laid the ground work for our deliberations.

Now the responsibility rests with each one of us to give the Conference issues our best thought, constructive discussion, and practical recommendations. We are all involved in producing the guide lines for action that we hope will be the outcome of the Conference deliberations.



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YOUR DAILY JOURNAL

The Conference Journal will be issued each day. It will be brought out as rapidly as possible following the daily sessions. The primary purpose of the Journal is to acquaint the participants with what has transpired in the workshops so that the discussions on the following day can be as productive as possible.

In addition to reporting on the sessions of the Conference the Journal will carry announcements and other information of importance to the members of the Conference.

Distribution will be to the rooms of those registered in the Queen Elizabeth and from a table on the main mezzanine.

ADMISSION CARDS

Admission Cards have been issued to all registrants attending workshop sessions, and participants are expected to have their Admission Cards available for presentation when they come to the session.

Members of the Steering Committee, of the secretariat, and the press will have identifying ribbons and may visit the workshop sessions as observers.

These regulations on attendance have been used because the workshops are expected to be work sessions. In some cases where registration was excessive, smaller groups have been organized within the workshop, and in every case it is hoped that there will be a minimum of 'floaters' or interruptions. The 'observer' category of registrant was not permitted because it was felt that the space restrictions and work requirements prevented acceptance of this category of participant.

ADDITIONAL WORKSHOPS CREATED TO MEET HEAVY REGISTRATION

Heavy registration in some workshops has made it necessary to organize a number of smaller groups within these workshops. This has been necessary in thirteen workshops and additional leadership has been recruited. Additional leaders will be recruited from the membership of the workshops. The workshops concerned and the leaders already recruited are:

Frontier Regions B2	Rapporteur	ADAMSON R.T. Ottawa, Ont.
River Valley Regions A2	Chairman	ANDERSON Carl Brooks, Alberta.
Frontier Regions B3	Rapporteur	ATTON F.M. Saskatoon, Sask.
Urban Growth & Resources A2	Rapporteur	BACON M. Toronto, Ont.
Administration A2	Chairman	BARTLETT D.W. Ottawa, Ont.
Urban Growth & Resources A2	Chairman	BEECROFT E. Ottawa, Ont.
Broad Economic Regions A3	Rapporteur	BERGEVIN J.B. Quebec, P.Q.
Research A2	Rapporteur	BOAN John A. Ottawa, Ont.
Jurisdiction 2	Rapporteur	BOYSON B.W. Regina, Sask.
River Valley Regions A2	Rapporteur	BRANDON L.V. Ottawa, Ont.
Frontier Regions B3	Chairman	CREIGHTON G.W.I. Halifax, N.S.
Management B2	Rapporteur	CRUTCHFIELD J.A. Seattle, U.S.A.

Urban-Centered Regions A2	Chairman	DOBUSH P. Montreal, P.Q.
Broad Economic Regions A2	Chairman	GLEAVE A.P. Saskatoon, Sask.
Research A2	Chairman	GOUNDREY G.K. Edmonton, Alta.
Urban-Centered Regions A2	Rapporteur	HIGGS K. Woodbridge, Ont.
Management A2	Chairman	HOPPER W.C. Ottawa, Ont.
Administration B2	Chairman	HORNER W.H. Regina, Sask.
Management B2	Chairman	KIRKPATRICK L.F. Halifax, N.S.
Agriculture B2	Chairman	PARKER C.V. Ottawa, Ont.
Forestry A2	Rapporteur	REDMOND D.R. Ottawa, Ont.
Broad Economic Regions A3	Chairman	RICHARDS Norval R. Guelph, Ont.
Frontier Regions B2	Chairman	RICHARDSON N.H. Westminister, B.C.
Administration B2	Rapporteur	ROSS David W. Vancouver, B.C.
Broad Economic Regions A2	Rapporteur	SAMETZ Z.W. Ottawa, Ont.
Administration A2	Rapporteur	THORPE F.J. Ottawa, Ont.

We are grateful to these men who have volunteered at short notice to help with the workshops, and who in many cases changed their travel plans to be on hand for the Sunday briefing session.

REGISTRATION ENQUIRIES

This station at the Registration Desk has been set up to accommodate those who, for any reason, do not have their workshop registration complete when they receive their binder.

The procedure is for the participant to leave his Admission Card at the desk and advise the attendant of the workshop he wishes to attend. Nearly all the workshops have a full complement of registrants and in some cases the physical space will not allow for further registrations. As far as possible we will accommodate the wishes of the registrant but we cannot promise to do so. The assignment to workshops will be made on Monday afternoon after the registration desk closes and the Admission Cards will be available at the Registration Enquiries station at 5:00 p.m. Monday.

WORKSHOP REARRANGEMENT FRONTIER REGIONS COMBINED

Participants will notice that a change has been made in the program from that outlined in Conference Bulletin #2 with respect to the workshops concerned with Frontier Regions on Thursday, October 26th. Workshop C has now been combined with Workshop B. It is felt that by integrating them it will be possible to deal more effectively with problems to be considered.

In the revised form, Workshop B is now entitled "Requirements for Development of Renewable Resources in the Frontier Regions of Canada". The questions which will form the basis for discussion under Step 5 will be as follows:

- a) To what extent are successful communities in frontier regions dependent on a diversified economic base, founded on multiple resource development?
- b) What are the possibilities of a regional program in such areas?
 - i) for taking stock of resources?
 - ii) for determining potentials for economic development?
 - iii) for working out a program for multiple resource development?
 - iv) for determining capital requirements?
 - v) for obtaining development capital from private and/or public resources?
 - vi) for planning and initiating systems of transportation and utilities required for the development program?
- c) What leadership can provinces provide in the establishment of development programs for frontier regions?

C.B.C. COVERAGE

Extensive reporting of the Resources for Tomorrow Conference by the Canadian Broadcasting Corporation underscores its national importance.

A spokesman said it will be given the greatest CBC coverage of any conference in Canada's history.

DISTINGUISHED VISITORS

Two distinguished visitors will take part in the ceremonial opening of the Conference at 9:15 Monday morning in the Grand Salon.

His Excellency Major-General Georges Vanier, the Governor-General, and His Worship Mayor Jean Drapeau of Montreal, will join in the opening of the Conference.

Among federal cabinet ministers attending the Monday banquet are Fisheries Minister J. Angus MacLean; Agriculture Minister Hamilton; and Defence Production Minister Raymond O'Hurley. They will be accompanied by their wives.

GOVERNMENT OF CANADA BANQUET

Another important function of the first day is the Government of Canada banquet at 8:00 p.m. in the Grand Salon.

Prime Minister John G. Diefenbaker and Quebec Premier Jean Lesage will deliver addresses at the dinner.

ASSISTANCE APPRECIATED

We have received wonderful assistance from both the Montreal and the Province of Quebec Tourist Bureau in arranging the ladies' programs and other parts of the Conference.

Literature and information on places of interest in Montreal and district is available from the Tourist Bureau representatives at the information desk in the mezzanine.

The representatives of the Province of Quebec Tourist Bureau and the Montreal Tourist and Convention Bureau are eager to help you with information and suggestions so stop and have a chat with them.

THANK YOU TO GLOBE AND MAIL

Thanks to the Globe and Mail and its publisher, Oakley Dalgleish, for providing Conference participants with reprints of the series by Walter Gray on the "Resources for Tomorrow" Conference.

Mr. Gray's articles received such response from the public that The Globe and Mail compiled them in booklet form for free distribution to the public. These are now available to all Conference participants at the information desk.

"THE BEST LAID PLANS OF MICE AND MEN....."

This time worn adage can be aptly applied to the arrangements that were painstakingly made for this Conference.

Early arriving delegates were delayed in getting accommodation Saturday night through circumstances that could not have been foreseen by either Conference officials or the hotel staff.

It seems many participants in a large international convention just winding up decided to remain another night -- taxing the facilities of the hotel to the limit.

THANKS GIRLS

The attractive young ladies staffing the registration desk are all Ottawa civil servants. The 12 girls work for the Agriculture, Fisheries, National Health and Welfare and Northern Affairs and National Resources Departments and the Conference Secretariat.

Registration was going smoothly this morning. The flow of men registering stepped up after 9:00 a.m.

AN EARLY BIRD!

Dave Turner, British Columbia's Deputy Minister of Recreation and Conservation, was the first participant to register Saturday afternoon.

Dave, who is an old hand at organizing resources conferences, said he was impressed with the way the registration had been organized.

AGRICULTURE MINISTER TO ATTEND ROME CONFERENCE

To Agriculture Minister Alvin Hamilton, the Resources for Tomorrow Conference has taken on added significance.

Mr. Hamilton, who spearheaded plans for the conference to focus national attention on management and conservation of renewable resources, leaves next week for a conference of the Food and Agriculture Organization in Rome where he will put forward Canada's proposal for a World Food Bank.

Thus, within a two-week period, he will move from a conference concerned with resource problems to one concerned with assisting less fortunate nations of the world.

Attending the Resources for Tomorrow Conference is the Vice-President of Resources for the Future Inc. -- Mr. Irving K. Fox of Washington, D.C. His organization was one of the first to offer technical assistance to Resources for Tomorrow.

Alberta Lands and Forests Department is justly proud of the Sept-Oct issue of its magazine Land Forest Wildlife just off the press. Three full-page illustrations are devoted to the "Resources for Tomorrow" Conference.

FURTHER BACKGROUND PAPERS
NOW AVAILABLE AT OFFICE

There are four additional background papers not included in the bound volumes. Copies of these are available on request to the Administration Office on the Third Floor.

The papers are: The Impact of Urban Growth on Agricultural Land by L.O. Gertler and Joan Hind Smith; Air Pollution as a Canadian Regional Problem by M. Katasz; Implications of Technological Change for Agricultural Productivity by L.H. Shebeski; The Loss of Farmlands in the Growth of the Metropolitan Regions of Canada by A.D. Crerar.

In addition, the Agricultural Institute of Canada independently published five papers on wind and water erosion, land reclamation, water storage and floor control, and irrigation in the Agricultural Institute Review (May-June, 1961).

ENTERTAINMENT FOR THE LADIES

Wives of delegates have not been forgotten. While their husbands are attending business sessions at the hotel, they will have the opportunity of participating in three interesting tours. In addition, two afternoon teas have been arranged.

The women, of course, will be welcome to sit in on the plenary sessions and to attend all banquets and receptions.

On Monday, a tour of the City of Montreal has been scheduled from 1:30 p.m. to 4:30 p.m. University students specially trained for the job will provide a running commentary on points of interest.

On Wednesday, the ladies will tour Montreal's renowned Botanical Gardens and Lafontaine Park from 9:30 a.m. to 12 noon. The Montreal Tourist Bureau will provide guides to highlight the many features of these beauty spots.

On Thursday, they will be offered a tour of the St. Lawrence Seaway from 9:30 a.m. to 4:30 p.m. Seaway officials are co-operating to make this event an informative and interesting one.

For all three tours, buses will leave from the main entrance to the hotel. Tickets may be obtained at the Conference's information desk or on entering the buses. A nominal charge of \$1.00 per person will be made.

The afternoon teas will be held in the Panorama Room of the Queen Elizabeth Tuesday, Wednesday and Friday from 3:30 to 4:30 p.m.

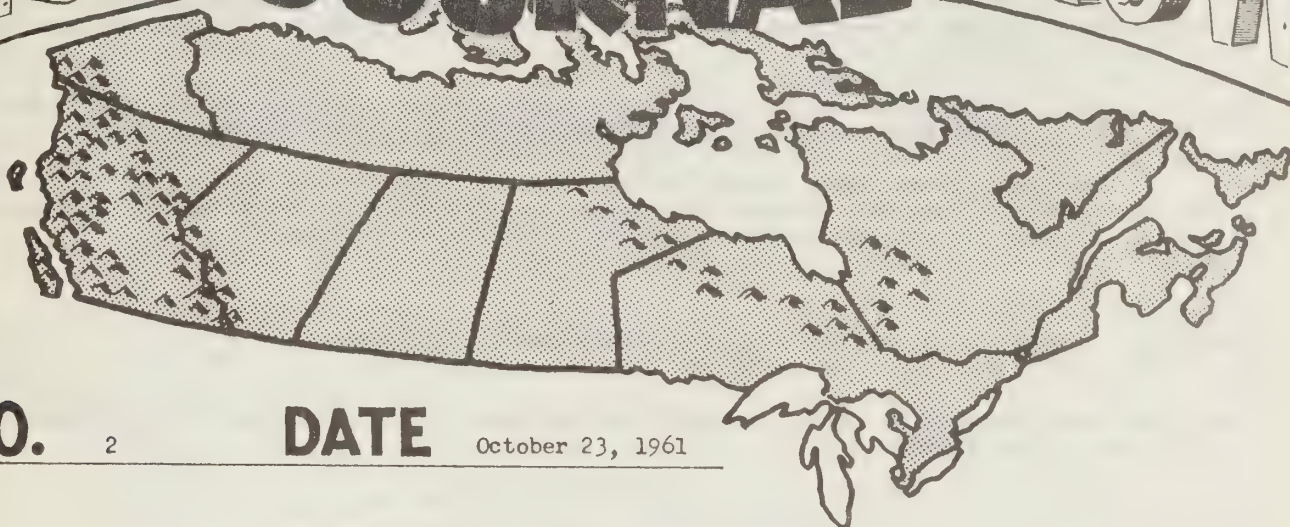
Wives of Conference participants who would like to attend a ceremony of historical significance are welcome to attend the unveiling of a plaque to Sir William C. Van Horne.

Resources Minister Dinsdale will join with N.R. Crump, President and Chairman of the Canadian Pacific Railway Company, in the ceremony.

The ceremony is set for 3:00 p.m. Wednesday in the main concourse of Windsor Station.

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RESOURCES FOR TOMORROW JOURNAL



NO.

2

DATE

October 23, 1961

INSPIRING OPENING MESSAGES SWING CONFERENCE INTO ACTION

His Excellency, Major-General G.-P. Vanier, Governor General of Canada, fittingly and impressively opened the "Resources For Tomorrow" Conference on Monday morning. His Excellency described Conference participants as "architects planning now for future generations". He emphasized the human element, our resources in men and women. Repeating the Miltonian injunction "Accuse not Nature, she hath done her part, do thou but thine", he pointed out that the declaration opened up the prospect of the whole range of exciting, challenging new careers in the management of resources.

Mayor Jean Drapeau of Montreal extended, in eloquent terms, a warm welcome to all Conference participants on behalf of the people of Canada's largest city.

Contents of this journal were prepared by the voluntary efforts of four Rapporteurs, two French speaking and two English speaking without opportunity to check fully with one another.

HOW TO GET TO AGRICULTURE A AND B WORKSHOP ROOMS IN ICAO (AVIATION) BUILDING

Be sure to leave twenty minutes early! Take the hotel elevator down to the level of the C.N.R. Central Station and walk through the station concourse to the elevators at the far end which ascend to floors in the Aviation Building, getting off at the tenth floor.

RAPPORTEURS - Rooms 353 and 350 at 5:00 p.m. Refreshments will be served.

NOTE - The room arrangements for workshop meetings on Friday will be announced in the Thursday issue of the JOURNAL.

CHAIRMAN DINSDALE'S ADDRESS SOUNDS CONVENTION KEYNOTE -
CREATION OF A NATIONAL COUNCIL POSSIBLE

Hinting strongly that one of the results flowing from Resources For Tomorrow Conference discussions could very well include the creation of a National Council for Resources Research, Honourable Walter Dinsdale, Minister of Northern Affairs and National Resources held the rapt attention of over one thousand participants and observers attending the opening session of the Conference. A Conference which he described as a "unique and epochal event".

The Conference Chairman outlined the new pattern of philosophy and the new approach to resource development in this country. Conference workshop agendas, Mr. Dinsdale said, "reflected concern not only with the physical sciences but also with the economic and social aspects" of Canadian life.

Mr. Dinsdale traced the history of the Conference idea and its development, sounding the warning that the "understanding of interdependence (of separate bodies of knowledge" is becoming a matter of life and death for modern civilization".

The Resources Minister pointed out that the Resources For Tomorrow undertaking was different from all other conferences in that it cuts across a wide range of resources, a range of problems related to those resources, and a range of professions and interests. In regard to the new connotation given the word "conservation" the Minister pointed out that "today all our renewable resources must not only be preserved but developed fruitfully together to ensure their continued availability for future generations".

Mr. Dinsdale referred to the "high nutritive value of the food for thought" produced in Conference background papers. The Minister drew a distinct line between resource development and economic development. "Our concern", he said, "is not just with resources alone but with resources in relation to capital and labour".

As to the spirit of the Conference, a new concept of intergovernmental co-operation was achieved in the preparations for it. "To ensure the success of the Conference the same harmonious relationships must persist", the Minister declared.

CANADIAN STANDARDS BASED ON RESOURCES

In opening the plenary session on resources and growth in the Canadian economy, Chairman Eric W. Kierans, President of the Montreal Stock Exchange, said Canadian standards of living had been founded on the development of our natural resources.

"Some say that the resultant importation of capital and capital equipment into the profitable expansion of our primary resources have brought high wages and one-sided development of export industries to Canada", he said, "Presumably this is the basis for the recent comment by the Minister of Trade and Commerce that Canadian manufacturing would come off second best if exposed to international competition. With this I cannot agree and persistence in this attitude cost Canada heavily in the future. The European trade blocs will not accept our agricultural and raw materials free and permit us to protect our weaker sectors. Admission to the new trade groups will demand a total, not a partial, commitment".

PAST DEVELOPMENT PATTERN PUTS CEILING ON GROWTH

As lead-off speaker in the plenary session on resources in relation to economic growth and development in the Canadian economy, Professor W.T. Easterbrook, Chairman of the University of Toronto's Department of Political Economy said the past pattern of Canadian economic activity has tended to impose a ceiling on the future growth of the country.

Principal question he asked: Do we have a choice to change this pattern?

There were, he said, two main aspects of the pattern of Canada's economic growth.

1. Until fairly recently, investment was channelled along fairly narrow lines, with the same type of economic concentration apparent in newly-emerging countries. Canada, he said, was in a marginal position with a "staple" economy, where growth was dependent upon the upward spiral of returns from the export of staple products. Any growth was in terms of "defensive" expansion, and while the resource base may have changed the established structure and outlook remained the same.

2. There was a high degree of centralization of investment, with an extreme dependence on export and the vulnerability that goes with foreign trade. With such prevailing uncertainty, the main basis of action was through big enterprises backed by strong government action.

With historically-set patterns that leave us too sensitive to international activity, there must, he said, be a realignment of policy. Canada, he indicated, had to break out from defensive, restrictive, protectionist policies that slow the rate of long-term growth.

There was, he maintained, a choice in the pattern of development, although it could not be established without painful adjustment.

Among the lines on which the question could be approached, Dr. Easterbrook suggested further research into input-output analysis, examination of various economic resources and sectors from the standpoint of their potential to promote development, and the stimulus they provide to domestic production from natural resource to final product.

In differentiating between economic growth -- which he indicated was "more of the same" -- and economic development, which involved a major transformation in the pattern of expansion, Dr. Easterbrook pointed out the strong internal momentum in areas like the northeastern U.S. as compared with the relative weakness of marginal growth areas as Canada and the southern United States.

For Canada, he said, there must be greater built-in momentum and drive, and on this rested the hope of greater economic autonomy. The opportunity, he said, was "possibly here for the first time", and Canada should not fall into the rut of defensive nationalism.

Canada, he said, had the resource base, the analytical tools and, he hoped, the proper perspectives to break out from the restricted patterns of past growth.

And, he concluded that the problems of secular unemployment were likely to lead to greater emphasis on development policies.

DEVELOPMENT OF SKILLS PRIME NEED

Professor F. Kenneth Hare, Chairman of the Department of Geography and Meteorology of McGill University, submitted that Canadians are not firing on all eight cylinders by their showing of "technological torporitude". He compared Canada's northern development with that of Russia and the other northern countries. Russia, he said, has done most of the pioneer work on the study of permafrost, while Canada did nothing until the end of the Second World War.

Mr. Hare blamed the inactivity on a restricted budget and the fact that the build-up of a national storehouse of skills has proceeded very slowly.

He said Canada should give a primary place to the development of skills.

"Our most renewable resource is the annual crop of babies", he said.

Mr. Hare proposed a larger concentration of investment in urban development, such as museums, schools, hospitals and the like or, in other words, an intensified investment in the public domain.

Dr. N.L. Nicholson, Director of the Geographical Branch of the Federal Department of Mines and Technical Surveys, predicted a great demand by the underdeveloped countries for Canadian resources. Canada's size, which in the past might have been a hindrance to its development, will be turned into its greatest asset.

Pierre Dagenais, of the Faculty of Geography at the University of Montreal, continuing the theme of human resources, said the main renewable resource seems to be its population and its attitude to the development of resources.

Dr. Edouard Page, Dean of the Science Faculty, University of Montreal, discussing the scientific technological factors conditioning growth, called for a concentration on research in Canada. He urged more generous assistance to universities and direct grants to junior researchers. He deplored the lack of interest shown by students toward the biological field which he called the most fertile for man's mind.

LAW PROVIDES FOR CO-OPERATION

Ample opportunity exists in constitutional law for government co-operation in the development of natural resources, lead-off speaker Dean W.R. Lederman of the Faculty of Law, Queen's University, declared in dealing with administrative-jurisdictional factors conditioning growth.

Citing the good record of the courts as caretakers of provincial autonomy and as interpreters of constitutional law, Dean Lederman said placing reliance on jurisdictional interpretations might be better than constitutional amendments.

As well, he said, there were other devices used by the federal government, with provincial co-operation, in bringing flexibility to jurisdiction. These include delegation of legislative powers to the provinces, as in the case of interprovincial trucking, the enforcement of federal regulations by provincial civil servants, as in the case of sport fishing, and conditional grants of federal money.

Co-operation between the federal government and provinces would be expanded in this sphere, he predicted, and stated the constitution, as applied flexibly and co-operatively, permitted all levels of government to work effectively for Canadian progress.

In strengthening this view, Montreal economist Pierre-Elliot Trudeau said constitutional law was the only framework for action. He said some technicians felt scientific research and technical knowledge was the only way to solve jurisdictional problems. This, he said, was a wrong approach. Scientists and administrators could point up any problems in jurisdiction, but it was up to the governments and courts to find methods, within the legal framework, to promote social and economic reality.

NO CONSTITUTIONAL BARRIERS

Professor Hugh J. Whalen of the Department of Economics and Political Science at the University of New Brunswick, felt that while the constitution had inherent flexibility, given consensus and the exercise of will on the part of political administrative leaders, both legal and administrative aspects of intergovernmental relations affecting resource development were far from perfect. He indicated there were difficulties of divided jurisdiction. Judges, he said, like the rest of the nation, stood in constant need of instruction, especially in complex areas of public policy as those examined at the Conference.

He pointed out that there appeared to be no constitutional barriers which "absolutely prohibit the implementation of resource development programs" in Canada. And where there is knowledge and a desire of common objectives "the appropriate legal means can be found".

ATTITUDE FACTOR IN GROWTH

"The characteristics of people" headed the "catalogue" of economic factors conditioning growth was outlined by Professor W.C. Hood, Department of Political Economy, University of Toronto. Terming attitudes to work a vital factor in increasing the economic growth, Dr. Hood said people must want goods, know how to produce them and be willing to work and save in order to have abundance. Thus, material aspirations must be present for economic development.

Dr. Hood listed two other factors in his catalogue: economic resources and institutions, and economic understanding and policy. In the resource factor, he stated that diversity of resources conferred a special advantage; that available resources determined the kind of economic activity in a locality, but that an economy was not condemned to a specific rate of growth by the character of resources. For example, through trade, nations without adequate resources had, by reasons of skills, training, capital and enterprise, been able to compensate for that lack.

In matters of policy, the range of activity was immense, he said, citing as examples economic stabilization policy, tax subsidy policy, policy on trading blocs, education, and research.

Professor Yves Dubé, Directeur du Département d'Economie à la Faculté des Sciences Sociales de l'Université Laval, a discussant, termed education one of the most important aspects in the study of economic growth, and that the educational standard of people influenced the areas of research and capital development, manpower, type of occupation, mobility, characteristics of institutions and their role as consumers. Investment in human capital, he said, was more important than physical and material resources, as resources made sense only through technology. Canadian development, he said, benefitted from the levels of education reached elsewhere, stating that Europeans and the United States were instrumental to a large degree in developing Canada's resources through techniques developed by themselves.

Professor J.F. Graham of the Department of Economics, Dalhousie University, gave special attention to regional development. After measures to facilitate mobility of the work force and resources had been fully undertaken, there were, he said, good grounds for a certain amount of subsidization of industry where the value accruing from use of the unemployed exceeded the value of the subsidy.

CONFERENCE PRESS COVERAGE EXTENSIVE

An idea of the scope and variety of the coverage being given to the Resources For Tomorrow Conference by the press may be gained by a look over the registration information. Early arrivals at the press desk on the mezzanine included Walter Gray, Ottawa correspondent of the Globe and Mail, also Ben Ward of the Ottawa staff of Canadian Press and Bruce West, columnist of the Globe and Mail of Toronto. Others on hand Sunday evening were Hugh Boyd, Ottawa Citizen columnist and Hilary Brigstocke of Ottawa, representing The Times of London, England. From Montreal there were Peter Desbarats of the Montreal Star, Clayton Sinclair of The Gazette, M. A. Caron and M. Langevin of Le Nouveau Journal and Joe Adler, a Montreal travel writer. Mr. Harold Shea of the Halifax Herald was early on the scene, as was Tom Ford of the Toronto Star. Richard J. Gwyn of Maclean-Hunter Publications was accompanied by his wife, Sandra, of the Canadian Art Magazine. Lauchie Chisholm is representing the Financial Post and Joseph Galonsky, the Voice of the Farmer, Reg Fife of Outdoor Writers of Canada, Lorne Hurd of The Country Guide, J.S. Cram and O.R. Evans of the Family Herald, Ivor Boggiss, Fairchild Publications, Les Morrow of Rod and Gun and Giselle Bergeron of Le Nouveau Journal and Perry Hill, Milwaukee Journal, have registered.

DISTINGUISHED VISITOR FROM ARGENTINA

Senor Salvador M. del Carril of Buenos Aires arrived Sunday evening to attend the Conference. Senor Carril, who is President of the National Institute of Industrial Technology in Argentina, represents the National Development Council of that country at this Conference. He reached Montreal just in time to appear at the informal reception at which press, radio and television personnel covering the Conference met members of the National Steering Committee.

LADIES - TWO SCENIC TREATS FOR YOU!

Wednesday - See Montreal's famed Botanical Gardens and beautiful Lafontaine Park. Montreal Tourist Bureau Guides will highlight beauty spots. Busses leave Mansfield St. entrance 9:30 a.m., returning 12 noon.

Thursday - Tour the St. Lawrence Seaway! Seaway officials will help to make your tour memorable. Busses leave Mansfield Street entrance 9:30 a.m., returning 4:30 p.m. For each tour there is a nominal charge of \$1.00.

It will help our planning if you can leave your name at the Information Desk on the Mezzanine floor but if this isn't possible, don't worry!

SPECIAL FILM SHOWING - GRAND SALON

Two N.F.B. films, "Deadly Dilemma" and "South Saskatchewan" will be shown on Tuesday evening, October 24th at 8:00 p.m. There will be a chairman and resource people present to answer questions after the showing.

1) DEADLY DILEMMA

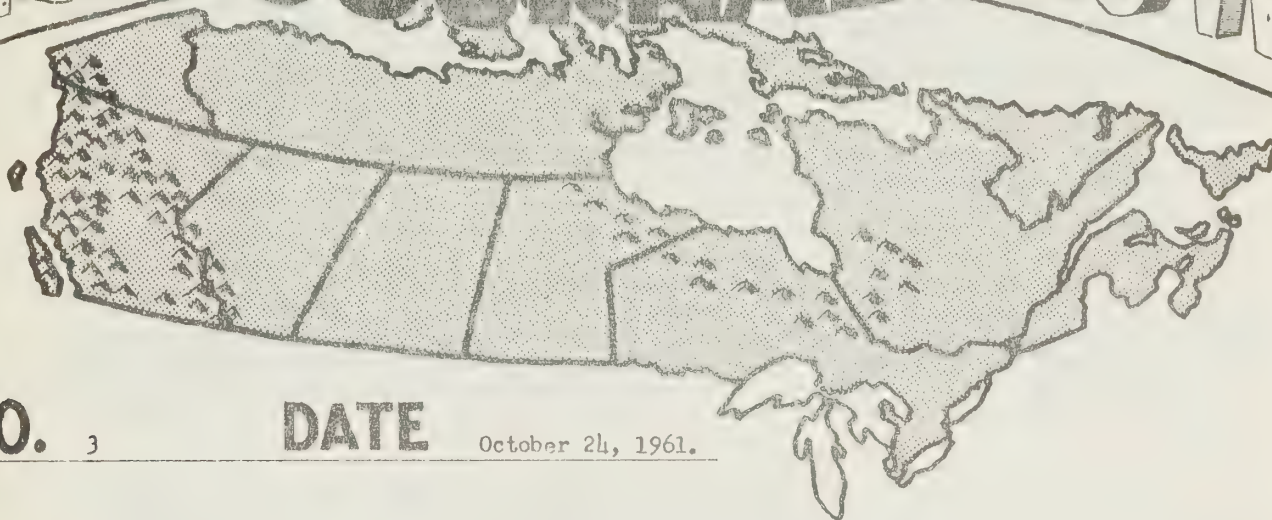
It is one thing to use a fly swatter or spray gun but quite another to blanket whole forests, whole fields with insect-killing fog. In the 15 minute film DEADLY DILEMMA examines the effects of widespread use of chemical insecticides both on the insect population at large and on warm-blooded creatures, including humans. The film also examines the ravages of insects and man's centuries-old struggle to keep them under control and shows experiments being conducted to find means of controlling specific insects, leaving harmless ones unmolested. All aspects of the problem are discussed by entomologists, agriculturalists and manufacturers of chemicals.

2) A LAKE FOR THE PRAIRIE

This film outlines plans for a vast integrated water control system for the Prairies and shows work in progress on the South Saskatchewan River Dam -- a multi-million dollar project which will give tremendous stimulus to every aspect of prairie life and provide a solid basis for future development of the region.

RESOURCES FOR TOMORROW

JOURNAL



NO. 3

DATE

October 24, 1961.

WORKSHOP SESSIONS BEGIN

Conferees did not take long to settle down to the serious business contemplated in the extensive and varied agenda of meetings. Every available room in the Queen Elizabeth Hotel suitable for workshop discussions was taken over for that purpose. In addition three rooms in the Aviation Building were similarly employed.

Sincerity and dedication of purpose has been evident from the commencement of conference proceedings and this prevailing mood distinguishes the atmosphere in which all discussions have taken place thus far. Leaders and other participants know that they carry a challenging responsibility. They recognize that a unique opportunity gleams before them. May what is accomplished this week in Montreal help to shape a better tomorrow for all Canada.

PIONEERING ASPECTS OF CONFERENCE
EMPHASIZED BY PRIME MINISTER

"In the matter of mobilizing special knowledge, skills and experience to apply to renewable resources development problems and in building, in co-operation, the long-term future of Canada, the Resources For Tomorrow Conference is one of the most important conferences since I first entered Parliament", Prime Minister Diefenbaker stated to the Federal dinner gathering Monday evening in a major policy address. "This is a beginning, as I see it", he emphasized, "and you are indeed the pioneers in a great undertaking".

The Prime Minister told the Conference that he had not thought it possible to bring together in such numbers outstanding men and women from all parts of the country for the purposes of this gathering. "It is amazing to me to see men and women assembled here without any consideration of personal gain, prepared to give of their time, abilities and energies for the good of Canada".

"This is a profoundly important step forward in the building of that one Canada which we all wish to see developed. In a spirit of co-operation we can all work together in a field of action so necessary to the improvement of the world in which we live. My reading of Conference Background Papers and the speeches made here thus far has left with me an alluvial deposit of information, some of it rich, all of it important. But what has stayed with me most is a sentence from a book on conservation by Charles W. Ferguson, which I read only this morning. It is the remark quoted from a Texas Forest Ranger, 'Our object...is to hold every drop of water where it falls and to make it walk off where it is now allowed to run off'."

The Prime Minister stated that "while the Federal Government will not, and must not, interfere in Provincial control and management of natural resources, it seems that there is a widespread area where federal supported provincial efforts will be beneficial". He then proceeded to outline some of the actions already taken by the Federal Government in various resource development fields.

PRIME MINISTER DIEFENBAKER'S THREE-POINT PROGRAM

1. Resource conferences, on a nation-wide basis, should be held at least once in every three or four years. The Federal Government is prepared, subject to parliamentary approval, to underwrite part of the cost of preparing for such conferences.
2. The Federal Government is prepared, with the co-operation of the provinces and subject to parliamentary approval, to establish and support a National Resources Council.
3. Consideration should be given to the establishment of a National Advisory Land and Water Use Board, empowered among other things to carry out the A.R.D.A. program. The Federal Government will give the most serious consideration to the deliberations and proposals of this 1961 "Resources for Tomorrow" Conference.

WORKSHOPS RECONVENED

At the request of Mr. M. Camu, Chairman of Urban Growth and Resources "B", the workshop will reconvene on Friday morning at 9 a.m. The meeting will be held in the St. Charles Salon.

The Urban Growth and Resources "A" will also reconvene on Friday at the request of Mr. Gavin Henderson. Resources "A" will meet in the Saguenay Salon.

PREMIER LESAGE FAVOURS GREATER COLLABORATION

Hon. Jean Lesage, Premier of Quebec, at the dinner Monday evening welcomed Resources for Tomorrow participants to the host province for this conference. He spoke with firmness and zeal on the special place and importance in Canadian life of certain aspects of the Conference and its work.

"Your governments", he reminded his listeners, "have invited you to take part in these deliberations but this does not mean that you agree with their policies in any way or that you are acting as their spokesman... The only aim of the Conference is, in fact, to analyse the deficiencies which exist in the development of our renewable resources and to give us an idea of the norms required for their proper exploitation while taking into account the various uses of waters, lands, forests, wildlife and fish."

The Premier indicated that the complexity of the problems to be faced must impel the provinces to establish frequent inter-relations. He stressed the very extensive and useful role of an inter-provincial and permanent Secretariat, a type of organization he himself had proposed in Ottawa a year ago.

Premier Lesage stated that the responsibility of taking action in the resource development field, to which the federal government can naturally bring valuable help, obliges the provinces to really develop between themselves constant collaboration because from now on the importance of this task is so crucial that it would be dangerous to minimize it.

WORK SHOP "A" - LAND MAINTENANCE AND IMPROVEMENT"

The background papers on land supply and technology suggests that, although there are reserves of land, these are not our best soils and that we are losing some of our soils to other uses. Furthermore, we are not maintaining fertility on our good soils. Technology holds great promise for increased soil productivity but there is a chronic time lag between availability of techniques and their adoption because of a lack of incentives. On the whole then, an adjustment and development programme may be faced with a scarcity of land and a need to accelerate widespread adoption of techniques for intensifying production.

The papers suggest that the farm firm and the farm as a social unit and as a part of a community are exposed to pressures of low income and low productivity and unplanned social disintegration. This suggests that agricultural development needs a foundation of economic and social values, principles and properly oriented programmes.

In addition, the group in discussion arrived at the following background assumptions -

- 1.- Increase in output of 70% required over next 20 years to meet domestic and foreign demand, with present ratios of imports and exports to production.
- 2.- Only a limited expansion in the agricultural land base is economically feasible under price and other conditions envisaged over next 20 years.
- 3.- Increased output must come from improved technology, management and from land maintenance and improvement. As technological and management improvements may not be sufficient, land maintenance and improvements are likely to be necessary to satisfy the growing demand for food.
- 4.- Increased efficiency of production will be necessary to compete with foreign agriculture.

Relevant to the situation as indicated by the background papers and the above assumptions, major objectives are outlined as follows:

- 1.- Improve efficiency of agricultural production.
- 2.- Stabilize output in face of natural hazards such as drought, flooding and erosion.
- 3.- Contribute to improvement in general economic and social conditions on a regional basis and in the nation as a whole.
- 4.- Convert land from present uses to other uses from which operators derive higher incomes.
- 5.- Protect our land and water resources for multiple or diversified purposes.

In developing operating principles it is recognized that programmes of land maintenance and improvement should be studied on -

- (a) Physical aspects;
- (b) Economic aspects (including benefit - cost analysis);
- (c) Social aspects (for example, effect of development on farm family and community;
- (d) Governmental aspects (for example, effect of development on local government;
- (e) Developmental aspects (for example, timing of development, administration, division of responsibilities, financing);
- (f) Self help aspects (for example, involving the individual and the community).

It is recognized that full consideration must be given to all of these aspects where relevant on the basis of desirable effect on individuals, the community and the nation.

A physical works programme for land maintenance and improvement is needed in order to supply Canada's food needs in the foreseeable future. Such a programme should be directed to the maintenance and improvement of lands already under cultivation.

The success of any physical works programme for land maintenance and improvement will be determined by -

- (a) The care used in evaluating the project. In this phase evaluation by means of cost benefit ratios and economic studies should be balanced by a thorough study of the intangible though very real benefits.
- (b) The care used in the initial planning and "in progress" development. Care should be taken to include as far as possible, in the plans for the project, a study and solution of the problems, both physical and economic, facing the individual who ultimately uses the land to produce crops.

Emphasis should be placed on programmes designed to maintain or improve lands presently owned and operated by individuals - most provincial authorities have considerable experience in the development and operation of such programmes. The incorporation of "the self help" principle in all programmes involving the individual is essential.

It is felt desirable that land maintenance and improvement should be developed within a framework of national policy and provincial policy with ample provision for provincial, regional and local flexibility. The land maintenance and improvement programme, particularly one dealing with physical works or projects requires participation of local, provincial and Federal jurisdiction.

It is recommended that a national policy be established on agricultural land and water use, based on regional requirements and developed by an Advisory Committee of Provincial and Federal representatives.

The discussion ended on this recommendation.

Further discussion is proposed on the role of existing Provincial and Federal agencies in a national policy on Agricultural land and water use.

URBAN GROWTH IN RESOURCES, WORK SHOP B, CONTROL
OF AIR POLLUTION GENERATED BY THE GROWTH OF CITIES

SUMMARY OF DISCUSSION

The background papers prepared by Maurice Katz, Master of Science, P.H.D. provide the group with a thorough appraisal of the:

- Nature of pollution.
- Pollution trends.
- Sources of pollution.
- International importations.
- Research activities, particularly Canadians.
- Control legislation and jurisdictional aspects.
- Trends in control regulations.
- Standards for ambient air quality.
- Motor vehicle exhaust.
- Technology of prevention and control.
- Town planning and the control of air pollution.

The contribution of discussions brought into sharp focus the views of those from government, industries, universities and associations, representing the disciplines of engineering, town planning, teaching, climatology, meteorology, medicine, geography, economics, public health and chemistry.

AREAS OF AGREEMENT

A number of areas of agreement evolved which may be discussed briefly as follows:

- a) The need for more research,
- b) More training of specialists in the field of air pollution and persons in related fields.
- c) The need for a central point from which information may be distributed on a continuing basis to all air pollution agencies, relevant disciplines and others having an interest in or be responsible for causing or controlling air pollution.

Need for research

While many air contaminants can be identified, measured and controlled, many cannot with our present store of knowledge. It is known that air pollution bears a relationship to the deterioration of health, buildings and other exposed materials, and plant life. Much more needs to be learned with respect to both the cause and effect of air pollution, the inter-action of substances and ways and means of instituting reasonable controls.

Training

The lack of trained personnel was evident on all sides. Areas wishing to administer proper controls or study their problems are often confronted with an extreme shortage of qualified people. The lack of training and educational facilities for both those who wish to specialize in the field and those who may be in a related field but require some knowledge of the subject was emphasized.

Distribution of Information

There appears to be a lack of a central clearing house for the collection and dissemination of information with respect to air pollution. While many avenues have yet to be explored there does exist a substantial body of knowledge and literature which could be brought together and distributed to all directly or indirectly concerned.

AREAS OF DISAGREEMENT

Methods

No generally acceptable method of approach in determining the cause, identification and control or prevention of air pollution emerged from the discussion although it was evident that it is essential and possible to develop and establish such methods.

Areas of Responsibility

No clear division of the area of responsibility emerged as between government and private

interests and the institutional disciplines concerned such as, engineering, town planning, public health, climatology, meteorology etc.

CONCLUSION AND RECOMMENDATION

1. That air pollution be assessed by competent authorities and subsequently reduced to levels acceptable to those authorities in respect to health, sanitation, esthetics, meteorology and economics.
2. That research facilities should be co-ordinated and expanded as necessary for the purpose of:
 - a) establishing standards for control,
 - b) dividing and/or improving ways to measure and identify air contaminants.
 - c) advising as to the air pollution potential of various sources of contaminants and the necessary control facilities.
 - d) developing effective remedies.
3. That facilities be established to train staff in air pollution measurement and evaluation techniques, control measures and administration.
4. That from the point of view of the long term national interest, the establishment of effective legislative and administrative means by the various provincial governments for controlling air pollution is desirable.
5. Air pollution has important regional aspects and for this reason, research measurement and control of air pollution will have to take into account its regional characteristics and regional differences as well as its more general aspects and norms.

URBAN GROWTH AND RESOURCES, WORKSHOP A₂

Preliminary Discussion

It is implicit in Crerar's paper that the problem of Urban Shadow is and will be a phenomenon related to big cities. This may be most apparent now because more evidence has been collected in regard to this problem in metropolitan areas. However, there is undoubtedly an urban shadow around small cities. It may be, and probably is, a fact that the total urban shadow produced by the latter is greater than that produced by the former. If our aim is to minimize the loss of land in production, it will perhaps be better to concentrate development in metropolitan areas where higher densities, mass transit, etc. is possible. However, it may be that the most suitable land for urban development is in areas where the land is also best for agricultural development. It is therefore necessary to weigh carefully, on the basis of accurate statistical information, the comparative cost of a) developing land for urban uses in terms of, for instance, sewers through loam or rock, b) the cost of replacing and using land taken out of agricultural production, and c) increasing agricultural production on land left for such use.

In connection with the possibility of "return to the city movement" it was established that even if this assumed massive proportions the increase in population and the need for more space for child-rearing families would far out-strip the land "saved" by those returning to the city. In any event there is a discernible trend on the part of CMHC & other agencies to advance money for the construction of dwelling units suitable for families who do not require a single family detached house.

Quite possibly the ratio of vacant land will decrease from 2:1, in proportion to the area of urban development as the need for agricultural production increases and the total amount of agricultural land becomes less.

It was agreed that the basic assumption made by Crerar that the present system of land ownership will not change substantially in the immediate future is correct; but that other influences will affect the present system of development. These may be:-

- 1) Government administrative policies such as zoning and taxation;
- 2) Changes in the present system of subsidizing services in outlying areas;
- 3) Some leasehold tenure of land, particularly in connection with multiple family housing units;
- 4) More Federal-Provincial housing and land assembly schemes;
- 5) Changes in taxation systems, allied with re-tightening of assessment practices;
- 6) The acquisition of some land by municipalities and its sale, at cost, in competition with developers, the land often being purchased in conjunction with land acquired for roads, utilities and other municipal purposes;
- 7) The making available of accurate information respecting the amount of land on the market, and injecting this information into the marketing machinery;
- 8) The use of development zones - the city of London, Ontario;
- 9) Master plans for areas larger than present municipal units, thus enabling governments to view individual development schemes in perspective;
- 10) The full use of present legislation, i.e., Section 3 of the Commerce and Development Act of Ontario.

1) Statistics

It was generally agreed that a great deal of statistical information was available. However, its existence was unknown to many and much of it could not easily be interpreted in areas where no electronic processing equipment was available.

It was hoped that the proposed "Canadian Council on Urban & Regional Research" would be able, on a national basis, to:

- 1) Ascertain the amount and location of existing information;
- 2) Inform all agencies using statistical information what was available and where;
- 3) Obtain details of the information needed by all agencies and inform the data collecting agencies what was required.

In this regard the following resolution was unanimously adopted: "That all government agencies connected with the collection and analysis of statistical information be requested to give unstinting support to the new CCURR."

It was generally agreed that aerial photographs should be taken around at least the 17 metropolitan areas in Canada as part of the census. The exact type of photograph that would be most useful to the largest number of agencies would be difficult but not impossible to ascertain. (The recently established Federal Department of Mines & Technical Surveys interdepartmental air survey may help in this.

It was suggested that at the research and information collection stage administrators and politicians should be brought into the picture to:

- a) help in suggesting the form information might take so that it was understood by and be useful to administrative and policy-making bodies;
- b) understand what work was going on, why and what use it would be.

Generally it was felt that all levels of government were not using to the full, and in some cases about not at all, the legislative powers now available to them. In this connection, and others, all agreed that clear, concise and fully justified proposals for economic, healthful, satisfying and stimulating development must be made available to politicians and the public. If every one is not clear as to aims and terms, the press, public and politicians will not understand or help to improve future development and conservation practices.

The notion that Planning, Politics, and an honest dollar were mutually exclusive was voiced and severely questioned. It was suggested that if planning was more of a political issue it would be more widely understood and accepted. Also, that an honest dollar was usually quite different from a fast buck.

Area and Regional planning was discussed and the following ideas stated:

- 1) the Provincial governments as the largest, apart from the Federal government, policy-making and administrative units should exercise more fully, and wisely the powers now available to them, so that gradually municipal units might amalgamate into more logical units within the framework of a provincial plan;
- 2) Regional Planning units should be set up, ultimately to become not just advisory but policy-making and enforcing agencies, these might be
 - a) Something similar to existing
 - b) revised county areas,
 - c) a completely new form of units,
 - d) a unit similar to the District Commissions in Alberta,
 - e) units similar to those being studied in Saskatchewan where it may be that 360 municipal units will be reduced in number to 65,
 - f) various unit types tailored to fit the areas in which they were situated.

3) A great deal of work was now being done by agencies that were really regional in character, i.e., Conservation Authorities, police, highways, hydro, O.W.R.C. they were accepted by the public as reasonable and necessary. If the public could be shown that planning, on a scale that was logical for the area involved, was the reasonable answer to development, re-development and resource conservation problems, it would accept planning on the scale required.

4) A most encouraging start has been made by the Niagara Regional Development Association consisting of many municipalities who wanted to produce a joint study of the area.

Sprawl

An attempt was made to produce a definition of sprawl and to state why it was happening. Sprawl is the outcome of unplanned and haphazard development that cannot be integrated into any rational plan for economic and satisfying development in the future. Low density development in suburban areas is not necessarily sprawl. It may be expensive in some ways, but if such densities are desired perhaps the cost of them is justified.

Sprawl often consists of ribbon development. Such is not a satisfactory environment for living or commerce and results in the lowering of the efficiency of the traffic facility it borders.

Sprawl is bad when it is uneconomic and encroaches on land that is needed in order to preserve more essential resources.

Sprawl results from such things as:

- a) a desire to escape unpleasant situations in the city, either real or imagined.
- b) a desire to obtain cheap accomodation, which often turns out to be substandard housing.
- c) A desire to l ve in spacious estate-like surroundings in an expensive mansion.

To combat sprawl a two pronged attack is essential:

- a) Effective land development control must be exercised.
- b) Housing that is pleasant and financially acceptable to all income groups must be made available.

The group questioned statement (10) in Crerer's paper and discussed the actual and probable effects of:

- 1) Subsidies
- 2) Irrigation projects
- 3) Freight rate assistance
- 4) A.R.D.A.

In conclusion it seemed that all existing measures tended to help the large scale non-dry land farmer most and should theoretically increase resistance to urban encroachment on agricultural land.

SUMMARY, WILDLIFE "A"

In his opening remarks the Chairman made several suggestions - that the discussions proceed through steps one to four as outlined in the workshop plan, and that steps five to seven be considered in a group; that the leadership group of workshops A and B meet Wednesday evening to discuss progress and plan Friday's discussions; that emphasis be placed on problems that cannot be solved by a single Province, and that discussion be directed toward anticipated recommendations.

The lead-off speaker presented a full summary of the background papers in which he identified thirteen points that seemed to require specific action. The discussants were not able to add a great deal to this analysis. It was pointed out that people can live in deserts and slums, but this is not considered to be a desirable situation. Wildlife is one of the important resources that raises human life above this elemental level. Wildlife can be retained in adequate amounts providing it is given its rightful place in resource use planning. The purpose of this workshop is to provide a solid base for planning.

The chairman presented a list of basic assumptions on which subsequent discussion was to be based. These were accepted with some discussion and a few amendments. The amended assumptions are as follows:

WILDLIFE SYMPOSIUM

It is assumed that:

1. Wildlife will consist of all species of mammals, birds, reptiles, amphibians and fish. The concept can also include invertebrates and floral aspects of the environment.
2. That no species shall be allowed to become extinct through the instrumentality of man.
3. That wildlife uses will continue to grow as population and urbanization increase.
4. That with increase of population, there will be an intensification of the use for other purposes of the better land areas, that will reduce their wildlife values.
5. That management, based upon continuing research can maintain valuable wildlife at useful levels.
6. Almost all use of wildlife in Canada is recreational use, but some primary use for food, clothing and commerce will continue.
7. It is assumed that management will seldom be uniform throughout the nation, for it should be adjusted to the requirements of various jurisdictions and to local conditions.
8. It is assumed that wildlife in Canada has a substantial and varied value that can be measured qualitatively as well as quantitatively.
9. That in wildlife management ethical considerations have a status at least equal to that of economic considerations.
10. That wildlife not yet reduced to possession will continue to be vested in the Crown and will therefore be a public responsibility.
11. The wildlife biologist should assume some responsibility for the provision of leadership in the fields of wildlife management and the management of wildlife habitats.
12. That private organizations and individuals will and should contribute to the development of a public ecological conscience, and will influence the formulation of policy.
13. That ideal populations of wildlife species will be at those levels of population that will maintain themselves without serious disturbance of the ecology or be required to satisfy the public need for recreation, nature study, scientific study and commercial interests without destruction of the habitat. Compatibility with other interests, such as agriculture, public health, public safety and industrial development should be sought through mutual adjustments.
14. That adequate habitat will be that type, quantity and quality of living space that will permit the production and distribution of ideal populations of the various species of wildlife in which we are interested.
15. The limitation of utilization depends upon
 - a) the philosophy of the individual and his total experience;
 - b) the available supply of wildlife; and,
 - c) the availability of access.

16. That utilization can be divided into consumptive and non-consumptive categories and each should receive equal consideration.
17. Some kinds of wildlife or some densities of populations may be harmful to other human interests and may require control

The chairman then called for discussion on the points raised by the lead off speaker, and some other topics that were suggested by the leadership group.

1. It is essential that wildlife values be measured. There was discussion as to how this might be done in view of the fact that wildlife has aesthetic as well as economic value and aesthetic values are notoriously difficult to express in dollar terms. Several techniques are available in the literature and it was suggested that economists and the Dominion Bureau of Statistics might provide valuable assistance.
2. How can a greater harvest of wildlife be obtained on agricultural lands? It is inescapable that the landowner should be compensated in some way (not necessarily monetary) for maintaining or improving wildlife habitat on his land. There is also urgent need for improved coordination between administrative departments concerned with different aspects of land use.
3. Waterfowl problems, particularly in the Prairie Provinces, were thoroughly ventilated. The greatest need is for adequate wetlands habitat for waterfowl production, but suitable areas for overwintering, resting during migration, and for harvesting the resource are also required. There is a pressing need for an inventory of wetlands. There is also need for coordination between different land and water users on the Prairies to insure that waterfowl values are recognized, and a need to reduce conflicts that exist in legislation dealing with wetlands.
4. There is a need for acquisition of land to be devoted primarily to wildlife production. Crown lands are still available for this purpose but cannot fill the need entirely. Private lands will need to be acquired through purchase. This may require enabling legislation to permit provincial wildlife divisions to purchase, own and manage, lands.
5. Needs for National Park and Wilderness type areas. It was agreed that an exhaustive review of these needs be undertaken by the appropriate authority. This review should consider several points such as
 - (a) Is the existing acreage sufficient and if so is it properly distributed in a geographical sense?
 - (b) By how much will the need be increased in 1980?
 - (c) Are there major physiographic areas of Canada not represented in the National Parks program?
 - (d) How should large ungulates be managed - by the Park staff or by public hunting?
 - (e) Are there undesirable practices such as haying, grazing, lumbering at present within the National Parks?
 - (f) Can some early successional stages be maintained within the Parks in spite of the objective of complete fire protection?
 - (g) Is there a need for other types of federally-controlled public-access lands such as wilderness areas, National forests, National game refuges.
6. It was generally agreed that there is a need for small reserves in many ecotypes for scientific study. While the reservation is a Provincial matter liaison is required to insure that all ecotypes are included. Some federal agency, such as the Canadian Wildlife Service, might provide the liaison. Universities and private bodies should cooperate in the selection of sites.
7. In view of the fact that human activity has created new ecological riches both terrestrial and aquatic, the possibility of filling vacant niches by means of exotic species should be investigated. The investigation must be at the Federal level because of the magnitude of the problem, the possibility of harmful introductions and the mobility of many species of wildlife.
8. Non-consumptive enjoyment of wildlife can take place in cities and should receive consideration in urban planning. The Conservation Authority in Southern Ontario has set a noteworthy example.

9. The management of large carnivores was discussed in relation to the basic assumptions regarding extinction and variation in management between regions. Their management should be based on knowledge, not prejudice, and should have a definite purpose in view, for example, game management, livestock protection, protection of human life.
10. It was recommended that Federal and Provincial Governments review their policies with respect to the management of the large mammals of the northern regions. These mammals may be able to support a considerable recreation industry without detriment to domestic use as a source of food.
11. The qualitative and quantitative needs for the wildlife resources to 1980 were discussed. Anticipated densities of human populations already exist in parts of the U.S.A. and it was agreed that management methods now known can provide the required amount of wildlife provided that lands for wildlife production are acquired and adequate funds are available. More sophisticated use of the resource such as fly fishing bow hunting, should also be promoted.
12. Access is a considerable problem in securing proper harvest of wildlife resources in some areas. Consideration should be given to extending the "Roads to Resources" program to cover such cases. Too easy access on the other hand tends to dilute the quality of the resource, therefore, careful planning is necessary.
13. Concern was expressed over the increasing levels of biocides in wildlife species. In some cases the levels in the meat of wild game exceed the tolerances established for humans by food and drug authorities. The widespread use of biocides without prior knowledge of their effects on the ecosystem was deplored.

WORKSHOP - FORESTRY "B"

What adjustments in management will be required to hold costs at competitive levels under pressure of greatly increased production requirements.

After the talks by the lead-off speaker and the two discussants, the chairman outlined that the day's discussion might follow the agenda outlined below:

1. Extensive and intensive forest management
2. Harvesting
3. Protection
4. Education, and
5. Research

Discussion took place from the floor in regard to this agenda and agreement was reached on these main headings.

1. Extensive and Intensive Management. Shortly after discussion was initiated on this topic it was proposed that we need to establish criteria on a national basis for economic justification of extensive or intensive management. It was suggested that a land classification on a biological basis was required to determine the best use, either single or multiple. It is important to balance costs of operating in distant stands compared to costs of growing wood on areas close to converging plants and/or markets. The idea here was whether when planning future operations it was cheaper to extend supply lines to reach raw material from unmanaged areas or to obtain wood from future managed stands close to markets. It was felt that under certain conditions it may be cheaper to extend supply lines to obtain the raw material (i.e. extensive) whereas under different conditions of time or location it may be cheaper to procure wood by means of intensive methods. The suggestion was made that the answer to this was not known and that case studies should be made to determine costs of production under extensive and intensive methods in Canada. One participant mentioned that wood production costs are decreasing in certain regions outside Canada while costs in Canada are still increasing. Therefore we must study costs of production in competitive countries. Another participant pointed out that with the item (i.e. rotation) involved in growing trees one must have faith in future demand for this raw material before investing sums on intensive management methods.
2. Harvesting. The group agreed that no company or country has a monopoly on mechanization or the application of machinery to the harvesting of timber from the forest. A number of visits and study tours have been arranged in the past through trade associations and government to other areas and countries. One

participant mentioned that more progress has been made in logging mechanization during the past four years than during the previous 50 years. However this recent stimulus to mechanization has created problems for the silviculturist and for labour. There is probably an accelerated need for understanding between management and labour concerning the increasing use of machinery. This understanding should probably come from management or government with increased information on mechanization and the need for increased training.

3. Protection. The group felt they should make a strong recommendation in respect to forest fire suppression, not only because of direct losses to the economic life of the country but also by reason of the less obvious losses such as burned-over watersheds, loss of recreational areas, and loss of game forage and habitat. Mention was made of the assistance received from the Department of National Defence in the use of troops for emergencies such as severe forest fires. The work of certain committees in the field of fire protection, composed of industry and government including the defence department, was commended.

The study group was very strong in its recommendations concerning grants available through the Federal Government for access roads. It was felt that roads were required for access to forest areas and for forest protection purposes. Such roads should be constructed both on licensed and non-licensed Crown land. Grants for these roads might come from the Access Roads program of the Federal Department of Forestry or from the Roads to Resources program of the Federal Department of Northern Affairs and National Resources. It was stressed that the location of such roads should be well planned.

In regard to protection against diseases and insects favourable mention was made of the Pest Control Advisory Committee in British Columbia. The group was of the opinion that regional advisory forestry committees composed of industry and government (Federal and Provincial) should be set up throughout Canada. However, the group felt sub-committees should be formed to study major sectors, i.e. Pest Control.

WORKSHOP "A"
RESOLUTIONS AND RECOMMENDATIONS

1. Fisheries regulations.

A major problem in the fisheries arises from the free or nominal cost of rights to exploit a common property resource. This problem is most sharply pointed up in those fisheries where there is relative scarcity of supply with the consequences of entry of too many fishermen, together with excess investment of capital.

The Workshop recommends that government fisheries policy in future be designed to bring about greater efficiency in the use of manpower and capital. In other words, policies should be devised to encourage the taking of the optimum catch as this is related to satisfactory economic returns throughout the industry. The Workshop further recommends intensification of research in the fields of economics and technology to provide a basis for implementation of this objective.

2. Development of the Fisheries.

The meeting took note of the increasing competition to Canada from a number of countries in taking certain fish stocks. Without suggesting a large scale expansion into the sea fisheries, it was nevertheless the opinion of the Workshop that Canada might find opportunities for increased catches if more direct assistance in exploratory and experimental fishing were undertaken.

The Workshop recommends that exploratory fishing expeditions be undertaken for the purpose of finding stocks and also discovering the best means of taking these.

3. Education.

The needs in the fisheries for improvement in the skills of all those connected with fisheries occupations was agreed. It was noted that policies for education and extension work for fisheries might vary regionally and that requirements would dictate the kinds of programs adopted. Nevertheless there was a consensus that training for the fisheries in particular disciplines and techniques should be a co-ordinated effort within regions. There was notation also of the need for training programs to be related to programs of government assistance and to technological change within the industry.

Fully acknowledge the necessity of more fishery service at all levels, engineering, technical and adult and recommend a well coordinated scheme of fisheries education at these three levels in order to ensure better application of research and science to the industry.

4. Processing Operations.

As in most industries, instances of inefficient operations can be found in fish processing. It was agreed that having regard to the conditions under which the industry operates, its efficiency is relatively high. The chief limitations to improved efficiency arise from seasonal and year to year variations in supplies of the raw material.

The Workshop recommends that further increases in efficiency in processing operations be facilitated. As appropriate increases in efficiency may be achieved by greater centralization, flexibility in fleets, supplying the plants so as to reduce seasonal and year to year variations in supply. Industry and government research programs should continue to work to improvement and development of products of the fisheries.

5. Marketing.

Problems relating to the marketing of Canadian fishery products abroad were recognized as intricate and complicated. It was observed that the government was undertaking a number of special trade missions in an endeavor to expand existing markets and to find new markets for fisheries products.

The development of the domestic market could provide opportunities for the Canadian industry. Much more needs to be known about food habits of Canadians however before any large scale market development program can be planned. This program should be developed largely by industry after research and investigations by government.

The Workshop supports and requests continuation of the export market expansion programme; it recommends that detailed surveys be undertaken of the domestic market for fisheries products.

6. Territorial Waters.

The Workshop agreed that questions of territorial waters play a significant role in determining the success and efficiency of Canadian fishing operations. They recognize however that many considerations other than fisheries are involved including international relations of a complex nature. The meeting recognized a distinction between the problem of territorial waters and that of Canadian exclusive fishing zones. The Workshop commends the policies which the Canadian Government have been pursuing in this regard.

7. Further Resources for Tomorrow Conferences.

Recognizing the value of the discussions which have been held, the Workshop commends those responsible for the conference and recommends that consideration be given to the organizing of further conferences of this kind. It is recommended that although the contributions of academic and civil service are valuable and are appreciated, a greater degree of participation by people engaged in commercial fishing operations would be desirable.

"RESOURCES FOR TOMORROW" CONFERENCE
FISHERIES B WORKSHOP

ATTAINING MORE EFFICIENT OPERATIONS IN THE FISHING INDUSTRY.

The presentations of the lead-off speaker and discussants.

Mr. C.J. Morrow, the lead-off speaker, began the workshop with the general observation that although many groups existed for the discussion of fisheries problems, neither individually or collectively had they been able "to clearly set out the problems of the fishing industry in terms which would lead to a logical program for more efficient operations in the future". Contributing to this inability to grasp "the basic pattern for sound development" were the complexity of the industry and its declining role in the Canadian economy.

The competitive structure of the industry is not a basic pattern for sound development" were the complexity of the industry and its declining role in the Canadian economy.

The competitive structure of the industry is not a basic fault and low profits testify to the narrow margin of operations. In fact, the low profits and current tax laws combine to discourage capital investment and are in part responsible for slow progress. Decreased competition between sellers on export markets and more orderly marketing could result in larger returns to both fisherman and industry.

Although there exist possibilities for increased catches of many species, it is doubtful if the future intensity of fishing by vessels of foreign countries can be predicted. Nevertheless it seems likely that we will continue to be able to meet any increased demand in the Canadian and United States markets. We should enlarge our attempts to increase per capita consumption of fish.

There are indications of economic inefficiency in fisheries of both coasts, - too many men, too many small units of gear, and seasonal operations of processing plants. Education at all levels is needed to ensure technological progress.

The discussants, Messrs. H. Stevens and E.M. Gosse, agreed with the view that the fishing industry is at present economically inefficient and made a variety of suggestions for ways of curing the industry's ailments. Mr. Stevens advocated license limitation for certain fisheries as a device for increasing economic return, a view strongly developed in the background paper by Professor Crutchfield. It was suggested that part of the saving so effected could be diverted into improvement of salmon fisheries and greater research expenditures. Problems of readjustment for fishermen were serious and demanded government consideration. Expansion into new fisheries would create employment, ease current hardship resulting from seasonal fisheries, and improve our international position in world sea fisheries competition. Means must be found for marketing our fish in areas of overpopulation. "Co-operative development and public ownership and control" were suggested as perhaps the "only logical means" of making most efficient use of fisheries resources.

Drawing examples from the Newfoundland fisheries, Mr. Gosse re-emphasized the problems of international fishing fleets, government aid programs, education, research, regional economic patterns, marketing and competition. He advocated orderly marketing and education of fishermen as two important areas for study.

Mr. J.G. Cowan briefly reviewed the similar types of problems confronting the inland fisheries.

Nature of Problem.

In a general discussion of the nature of the problem of attaining more efficient operations, inefficiencies in fishing and processing operations were recognized.

In fishing operations, inefficiency results from three major causes. These are ineffective use of labour and capital, the seasonal nature of most fishing operations, and the inadequate fishing methods in many areas.

In most commercial fisheries Canada has too many fishermen and too much capital devoted to present levels of fish production. This results from the common property nature of the resource and the unrestricted right of entry of Canadian fishermen in most fisheries.

Seasonal inefficiencies of fishing operations result from such causes as fluctuations in fish abundance, changes in weather and ice conditions for fishing, effects of fisheries regulations which are designed to conserve the fisheries, and the limited diversity in the number of species and areas fished.

Fishing methods are inadequate in many regions. Traditional fishing gears have not been adequately replaced with the most efficient gears now available. Fishing craft have increased in size, but relatively few are large enough or sufficiently well equipped for year-round, mobile, flexible, centralized operations. Other inefficiencies result from inadequate fleet organization, collection and transportation of fish to processing plants.

In processing operations we find mechanized fish plants in all areas, but we still find inefficiencies related to the primary fishing and the tertiary marketing levels of fish production.

Fish production fluctuates widely and in an unpredictable manner from year to year. These annual changes together with the difficult seasonal nature of fishing operations noted above constitute a most serious problem of risk and inefficiency for the processing industry.

Inadequate marketing includes a number of problems. Increased demand has been limited by

numbers of consumers. Per capita fish consumption does not appear to be increasing with improvements in variety and quality of fisheries products. Promotion of fish sales has been on a small scale compared with many other food products. There is certainly room for improvement in marketing procedures to avoid problems in stability of fish prices. This is resulting in reduced economic returns for effort expended in fishing.

International competition is also important in the marketing of fish, particularly in export markets. Foreign competitors of Canadian industry are catching fish with efficient methods which are often subsidized by Government. In order to continue high exports of fish it is necessary to sell fish of high quality at competitive prices. This makes increased efficiency of all operations essential.

The workshop noted the lack of clear understanding concerning the Canadian policy for fisheries. Many programs in Fisheries, Transport, Labour and Public Works Departments of the Federal Government, and in the Provincial Governments are encouraging more efficient fishing and processing operations. These include research development, education, inspection, consumer, insurance, harbour development, subsidy, loan and trade programs. It was noted that increased integration of these programs into a national policy is desirable.

FORESTRY "A"

Legislation

It was agreed that the form and content of provincial legislation should be reviewed to stress and facilitate modern policies of forest administration.

Research

It was recognized that there are four bodies interested in carrying out forest research and that universities and the federal government should be well organized, equipped and staffed to carry out more fundamental lines, and provinces and industry should be organized to carry out more work related to operations systems. More research should be directed toward immediate problems without curtailing long-term research. Introduction of an expanded federal, provincial and industry system of grants to universities and for scholarships for outstanding post-graduate students was recommended. The co-ordination of such a research plan should be entrusted to a board made up of representatives from universities, the federal and provincial governments and industry.

Management

Since our ability to compete with other countries is based on the cost of forest operations, our forest policies should be improved toward

- (a) high-intensity management in easily accessible regions, and
- (b) the orderly development of less accessible areas through construction of access roads and other necessary improvements.

Royalties

In the interest of cost reduction there should be consideration in lieu stumpage charges of a system of economic rent based upon the productive capacity of the land, its nearness to mills and markets and other relevant factors.

Marketing

Our country having lost its long privileged situation on the world market of forest products and having lost sales of pulp products due to the recent integration of the U.S. pulp and paper industry, it is recommended

- (a) that the federal government work toward improving trade policy in a manner to increase sale of forest products on world markets and in trading blocks such as E.E.C., E.F.T.A., Asia, Africa and Latin America.
- (b) that the federal government should expand facilities for improving sales of forest products in export markets and
- (c) that consideration be given to reorientation or change of the structure of our forest industry to enable the products other than newsprint to be competitive on the world markets.

Improving the environment (administrative, jurisdictional and economic) within which substantial increase in output of forest products may be obtained within competitive cost limits.

Findings

There was general agreement

- (a) that the physical supply of forest resources is adequate to allow a substantial increase in output of forest products on a sustained yield basis.
- (b) that the world demand for forest products will continue to increase at a rapid rate and almost double by 1980.
- (c) that the problem for Canada lies in meeting competition in world markets for the sale of forest products.

The lead-off speaker and discussants approached the solution of the problem in a variety of ways.

An argument was advanced for the advantages of a public enterprise system of production. Advantages claimed included:

- (a) improved utilization of the forest resource
- (b) more efficient manufacturing of lumber and production of a high standard of graded product
- (c) centralized marketing of relatively large quantities
- (d) savings in the cost of administration
- (e) a steady level of operations and employment
- (f) improved labour relations.

It was also suggested that the solution might lie in moving in the direction of private ownership of the forest resources by substituting a charge in the form of a ground-rent in place of stumpage or royalties and providing the leaseholder with security of tenure and an interest in future production.

A third proposal was that the solution lies in improvement of the national trading policy, modernizing and improving the forest tax structure at all levels and eliminating regulations or practices that are unnecessary or which do not provide benefits to the public interest commensurate with the costs involved.

A series of statements was then placed before the Workshop for discussion. These dealt with the subjects of Jurisdiction, Legislation, Research, Management and Marketing.

Jurisdiction

It was agreed that, to provide improvement in the lagging economy of forest industry, taxes at all levels and Crown charges should be designed to favour and encourage the optimum development of the forest resources and industries. To this end they should be the subject of a study by a qualified agency and the results should be referred to all taxing authorities. The advantages claimed for Crown enterprises and co-operative organizations for the development of forest resources and the marketing of forest products were discussed by no conclusion or recommendation was reached.

The recent efforts being made by the saw-mill industry to counteract the constant proportional decrease in the demands for lumber by a more diversified production were commended. It was suggested that increased investigation should be made on progressive automation in saw-mills and the conversion of low value wood into a series of more attractive products more able to compete.

The Workshop will convene again on Friday to consider a final draft of these and other recommendations.

URBAN GROWTH AND RESOURCES

A - "PROVIDING FOR URBAN GROWTH WITHOUT WASTING AGRICULTURAL LAND & OTHER RENEWABLE RESOURCES "

WORKSHOP A-1

Chairman: Gavin Henderson
Co-Chairman: Joyce Tyrrell
Rapporteurs: Norman Pearson
& Jean Cimon.

1. INTRODUCTION: The basis of the problem

Canadian urban growth is invading the most fertile and productive agricultural lands of our nation. (cf. Gertler: Vol. I Background Studies "Regional Planning and Development" 1st para. section entitled "Population Problems & Planning" p. 399).

In the 1956 Census the Canadian population was 66% urbanized and 13% agricultural. The Gordon report predicted that in 1985 our population would be 80% urban, and only 9% agricultural, and an additional 3.5 million acres of agricultural land might be occupied by urban uses.

2. DIAGNOSIS: Waste of Resources Consequent Upon Urban Territorial Expansion

- (a) Fertile and highly productive agricultural land indiscriminately urbanised.
- (b) Landscape mutilated by urbanisation.
- (c) Severe air and water pollution and waste in urban shadow in the regions predominantly urbanised.
- (d) Unnecessary destruction of open space and special recreational resources needed for urban populations.

3. ANALYSIS: Determining Factors in this Waste and Possibility of Positive Action to Remedy the Situation.

To give a basic stimulus to free discussion of the problem and enable attention to focus on the positive aspects, 10 hypothesis put forward by the principal background paper for this workshop (by Mr. A. D. Crerar) were circulated among the participants. These may be briefly summarised as follows:-

- 1. Motor-car the preferred means of transport
- 2. Continued dominance of metropolitan regions
- 3. Preferred housing type to remain style family dwelling
- 4. Elimination of required differences and landscape distinctions
- 5. Unchanged structure of land ownership and piecing
- 6. Inability to achieve positive land use controls in rural areas
- 7. Research crippled by inadequate statistical base
- 8. Continuing inadequacy of urban administration units
- 9. Acceptable alternate sources of food supply
- 10. Persistence of small and inefficient farm units.

The discussants challenged these (see their papers).

In the morning session the following general comments were reached:-

- (a) there is a significant "economic fallout" of farmland not caused by urban growth
- (b) there was no real agreement on the scale of impact of urban growth
- (c) the hypothesis 8 was confirmed
- (d) there was felt to be a need for much more research into cost/distance factors in the urban shadow
- (e) the group felt that a really significant example of waste was in the impact of this urban growth on the "milksheds" of the great cities
- (f) price, quality and service were felt to be the determinants and basic influences on judgment. Basic resources should be kept to guarantee service, but if the quality was poor then a surrender to other purposes might be the best answer.
- (g) there was considerable divergence of view on whether the "urban shadow" has any significant long-term agricultural effect, and on whether the phenomenon is likely to continue to expand as cities grow.
- (h) there was some questioning of the basic principle of withdrawing agriculture to less productive lands relying on technology.
- (i) there was felt to be a real problem in the indiscriminate transfer of land to urban uses.
(Reference was made to Dr. Leahey Vol. I page 99)
- (j) a valuable distinction was made between recreational land
 - (a) RESOURCE-BASE LAND
(irreplaceable natural assets)
 - (b) DAILY-NEEDS LAND
("artificial" provision of parks: not substituted for or replaced by (i).
- (k) low-density zoning may actually worsen the impact of sprawl and cause more waste.

The group then agreed on basic framework for discussion and proceeded from that point as A-1 and A-2.

AFTERNOON DISCUSSION

SUMMARY

DISCUSSION (WITHIN FRAMEWORK OF ASSUMPTIONS ACCEPTED IN MORNING SESSION) OF CRERAR'S BASIC STATEMENT OF 10 FACTORS WHICH WILL ACCELERATE URBAN SPRAWL

- Assumption 1. This assumption not accepted; phenomenon is universal; but metropolitan areas have related systems of land use and transportation; use of all means of transportation in proper relationship can materially affect urban structure; can no longer status symbol; prevalent use probably reflects needs not yet met by more efficient and satisfying means of transportation. Room for many patterns.
- Assumption 2. Not considered directly relevant; the basic urban patterns of "1980" will have many chances to vary within the urban shadow pattern already established; the future urban area is already apparent, and its form is by no means determined.
- Assumption 3. Not agreed: serious questioning by the group of Federal policies favouring the single family dwelling. This generates vast urban territorial demands and emphasises the need for motor-cars. Does not reflect real needs and wants of population nor its characteristics nor structure. New city dwellers find few amenities in cities.
- Assumption 4. Considered in two aspects:
 - (a) homogeneity of rate structures (e.g.) telephone areas) in metropolitan centres
 - (b) obliteration of landscape differences in areas of urban expansion (all cities tend to look alike in their new quarters).

This assumption was considered to be valid insofar as the realisation of these factors was concerned. The conclusion with relation to:-

- (a) that there are tools for directing urban growth that should be realised and explored; it is particularly important to realise that value-judgements have already been made favouring the present trends.
Opinion differed;
 - (1) economists and social students suggest that to accept this is to admit defeat

(ii) politicians felt it is unrealistic to expect to change these trends.

CONCLUSION: that the cost of services is an important tool presently used irrationally and unthinkingly.

This was challenged and not considered to be necessarily valid. Emphasis was placed on

- (a) possible changes in public taste
- (b) agreement that the loss of agricultural land does not constitute a serious problem
- (c) we are apparently losing the best land and shedding the worst
- (d) realisation that loss of farmland is permanent and that there is increasing competition for good farmland (as this is within reach of urban growth) which may involve sacrifices; such sacrifices should be rationally based rather than left to market pressures.
- (e) need for identification of resources and action to save them.

This was felt to be completely incorrect: shown by the way in which the subsidy structures are applied (favouring adjustment to larger economic units). Supports are on price not income; this favours the larger operator.

Group then turned to question:

HOW TO ADJUST THESE FACTORS TO AVOID WASTE?

In discussion various major points were made

1. Research is needed at the national level to find out how to get better results from agricultural land in the urban shadow.
2. Controls over water pollution may be yet another effective means of controlling urban farm.
3. There are too many areas of uncertainty in the related sciences: two main problems
 - (a) how to get plans for emergency action where unique resources may be in imminent danger
 - (b) how to get data for the long-term.
4. The problem is how to devise a programme while being as clear as possible on the needs for research without weakening recommendation to meet emergency situations.
5. There was much divergence of opinion on the possible ways of solving problems of fragmentation in urban region.
6. It was agreed that fragmentation is a serious problem and causes waste:-
 - examples (a) buying and preserving parkland in areas presently with low population but inevitably involved in massive population growth.
 - (b) single function authorities which are relatively irresponsible in their impact on urban farm (e.g. water authorities).
7. There appeared to be a great need for all levels of government to evaluate their role, the side effects of their policies, within the greater context of their impact on urban farm.
8. Among those concerned with the use of statistical resources, there was considerable divergence of views about the usefulness and comprehensiveness of data concerning the historical assessment of the factors involved. Again, the need for further research at national and regional levels to make adequate data available was emphasized.

The discussion began by facing the problem of providing for urban growth without wasting agricultural land and other resources.

It appears however that

- (a) little if any direct approach has been made to this problem.
- (b) the loss of agricultural land does not seem to constitute a serious problem.

- (c) but special assets such as the Niagara fruit belt on the wide variety of special "recreational" assets are in much more danger of destruction than was originally surmised.
- (d) we need to know the true facts; much more research is needed on the national scale and in relation to regional areas; the phenomenon appear to be universal; the solutions may be regional; on the assumption that urban problems are included by complication, the group felt that the Prime Minister's suggestions vis-a-vis research and advice should be picked up and put into effect as quickly as possible.
- (e) the identification of special land resources is a critical subject demanding penetrating research.
- (f) "scatter" or "sprawl" is apparently equally detrimental to urban form and rural structure, there is an IMMEDIATE task to achieve deeper and more extensive research.

The trends were felt to be irreversible to the extent that conventional boundaries have been broken; town and country are not seen as antitheses; the problem of the future is to see urban growth and maintenance of good land resource policy as man-and-wife.

To effect some reconciliation regional planning is needed, in the opinion of the group. While the group could not agree on the means (whether this should be imposed regional planning with or without administrative responsibility) it was agreed that regionalism might begin in

- (a) study areas becoming
- (b) control areas and eventually
- (c) administrative areas.

No other means was seen as feasible for solving administrative fragmentation.

In the recreational field, a broad interpretation was placed on this aspect. Recreation was taken to include wilderness areas, panoramic landscapes, historical sites and buildings, spectacular natural features and viewpoints, nature reserves, and unique geological and biotic phenomena. It was agreed that here areas must be acquired quickly, that no time was to be lost, as these are the first phenomena to suffer in rapid urban territorial expansion.

Facing the facts that we can not tell suburbia to stop, and that adjustments in taxes, rates may be difficult, it was also suggested that higher urban densities may be more feasible and the real needs and wants of people (as opposed to the "Madison Avenue" wants) met better by a concerted effort to learn how to build real cities, places with civic pride and an "attractive" environment in all senses of the word.

Some members felt that this was a long term educational process: others that facilities provided now were more important, some there is little choice for city dwellers with the restricted types of urban environment now offered. Don Mills and Flemingdon Park in Toronto were quoted as examples.

It was agreed that the group felt sprawl to be a most costly form of urban development. The primary of the economic causes was emphatically agreed: sprawl in its occurrence is of economic benefit to many individuals who enjoy its personal consequences, but society pays the bill for this. Studies of the impact of sprawl may help reverse the apparent economic attractiveness. It was felt that there should be an attack on unearned increment resulting from real estate speculation. The capital gains tax was suggested but did not meet with general agreement.

It was pointed out that metropolitan government is a universal necessity across Canada. It was felt that regions were grouped first by resource analysis, administrative expression might be easier to achieve on that basis.

The opinion was expressed that Canada was an almost complete lack of actual planning: much support was expressed for the view that planning effort is frustrated by seeking to correct things already wrong, or "patching". Once again a direct approach was recommended:-

- (a) the logical beginning: to define NATIONAL planning aims in relation to
 - (i) resources and provincial planning
 - (ii) land
 - (iii) compensation and betterment
 - (iv) correlation of department policies
 - (v) regional planning objective
- (b) proceeding thence to encourage, within the constitutional, framework (which appears to be flexible enough) PROVINCIAL PLANS in particular ensuring co-ordination between all agencies concerned with resources, and studies of desirable regional structure.

- (c) within this framework of policies, REGIONAL plans as the background to treat statutory schemes.

The group in discussion AGREED ON THE NEED FOR THE REGIONAL CONCEPT AND ON THE NEED FOR THE DEFINITION AND ESTABLISHMENT OF REGIONAL ENTITIES.

In pursuing the question of speculation the group agreed

- (i) this is a national problem which can only be fought at that and the provincial level
- (ii) land is now regarded as a commodities; it is however a resource
- (iii) that this problem may be irrelevant in isolation BUT:

"planning is not politics but it is a political activity". This becomes a political question

- (iv) land used improperly because of speculation and lack of planning aids further speculation
- (v) land is basic to existence but public ownership is probably not acceptable: it may be a solution. The others are
 - A. unearned increment taxes
 - B. outright purchase of land needed for development
 - C. purchase of development rights.

REPORT ON AGRICULTURAL WORKSHOP "B"

ADJUSTMENTS ON LAND IN AGRICULTURE

The Workshop accepted the assumptions and principles discussed in the morning session with the understanding that modifications may be made subsequently. Both sections of Workshop B followed the procedures set out in sections 5, 6 and 7 of the Blue book after the joint morning session. The following problems were named by the two sections -

- 1) The present use of land and the changes in agricultural use of land have not been established on a planned basis.
- 2) What is to be done with sub-marginal lands ?
- 3) The need for adjustment on presently operating farms, whether in sub-marginal or super-marginal areas requires attention.
- 4) Limited alternate opportunities are available for farmers to engage in other forms of employment.

It was emphasized that good land is being taken out of agricultural production for industrial urban and other purposes, with little controlled planning in many parts of Canada. Examples were given of the loss of good agricultural land.

In this regard local, Provincial and Federal Governments and their agencies, with or without the power to expropriate land are the agencies involved. There are bottlenecks with respect to their decisions which are often political.

A number of examples were given of policies in many Provinces of Canada in which agricultural land was being changed to other uses by such programs as community pastures, both Federal and Provincial, and re-forestation.

In regard to the abandonment of sub-marginal lands, it was noted that both economic and social pressures were significant controlling factors. It was noted that adjustments are taking place on many individual farms. Agencies are assisting in these adjustments through research and extension services, organizations of various kinds, both Government, Co-operative and private.

It was stressed by many participants that we must recognize the significance of people in the social and economic sense, as well as the physical features as they affect land use. The problem of farm credit was stressed by several speakers, and the crux of the problem seemed to be that the public does not accept the distinction that credit should be reserved to those with Management skills rather than being made available to anyone who applies. The problems which must actually be faced in considering the adjustments in the use of land are the size of farm properties, the proper use of the land according to its capability and the necessity for a farm business to be able to adjust to the changing economic conditions.

It was the consensus of opinion that it appears to be inevitable that major adjustments in the use of land implies an increase in total agricultural productivity. In addition, this implies the need for equal emphasis in meeting marketing problems.

It was stated that it is necessary to review existing and future agricultural aid programs to ensure that they do not aggravate or maintain uneconomic farm units or practices. One specific point on which agreement was reached concerned the alienation of Crown land in several Provinces. Existing legislation appears to be outdated in some cases, and in other Provinces recent changes have been made. It would appear that four factors require consideration in developing new policies to govern the alienation of Crown land in order to assure efficient and successful farming in the future. The four factors are that the size of the property must be variable, and must depend on the capability of the land, and the regional context and location of the particular parcel. In addition, the Management skill of the applicant must be considered and also his financial competence. It was not considered necessary to change these specifications regardless of whether the land was alienated in fee simple or on a lease basis.

It was recognized that the need for a physical and economic classification of land was axiomatic for any kind of adjustment in land use. Four points were reiterated from Gilson's paper. These were -

1. That programs were necessary to assist the outward migration from sub-marginal areas.

2. That supervised credit is essential.
3. That long term planning of land use based on research is necessary.
4. That Government may be required to buy land in low income areas

It was suggested that in one sense time was on our side in the problem of correcting land use in sub-marginal areas. Social and economic pressures in time do effect changes without the need for costly crash programs. Through zoning to prevent additional settlement in undesirable areas, depopulation will occur of its own accord.

It should be understood that other Countries are prepared to fulfill the agricultural needs of Canada. In some respects competition among farm producers is not within our national limits but with other Countries.

The real need is to help the farmer who is in a sub-marginal situation, either to extricate himself physically from that situation, or to make adjustments which will enable him to achieve economic success on his present location.

A number of impediments to land adjustment were recognized. These can be stated as follows:

1. The cost of necessary surveys.
2. Costs of purchasing sub-marginal land for conversion to other uses.
3. How to cope with the problem of people who may be displaced through such a program.
4. Lack of adequate credit facilities for areas considered worthy of rehabilitation.
5. Inadequacy to establish methods of rural land assessment and taxation as they affect land use adjustments.
6. The inability of farmers through lack of technical knowledge and desire to effect the necessary adjustments on their own.
7. The lack of proper training, including teaching facilities for farmers and their families who may be required to move from agriculture to other occupations.

WATER, WORKSHOP A

Following presentation of the lead-off paper, the Workshop held a short general discussion after which the Chairman pinpointed the problems before the group as:

- A) Purpose and scope of multi-purpose concept
- B) Federal-Provincial considerations
- C) Public-private considerations
- D) Organization - agency and functions
 - (i) Studies and investigations
 - (ii) Construction, management and marketing.

A. The purpose of multi-purpose consideration was stated to be: "that the renewable resources of a river basin should be planned and developed on an integrated basis making maximum use of the physical and human resources and skills for the maximum well-being of the public generally".

A broad discussion with respect to the scope of multi-purpose consideration clearly indicated that each river basin has its own peculiar problems depending on size, geography, the state of economic development of the basin and other factors. It was brought out that consideration should be broadened to include ground water as well as surface water problems. General agreement was given to a summation as follows, "The concept of multi-purpose river basin development should take into account all relevant purposes related to water use in the context of the particular basin".

B. Federal-Provincial Considerations

General discussions indicated that Federal-provincial co-operation currently existed in many fields both on a formal and informal basis but there was no fixed pattern and frequently the roles of the two governments were unclear. The view was expressed that this lack of clarity is inhibiting development in many areas. It was also pointed out that there has been no consistent policy in the case of financial participation.

The chairman summarized the discussion of this question along the following lines:

- (i) Since water resources are owned by the provinces, the initiative for development should be provincial. (Exceptions to this might be in cases of interprovincial and international basins.)
- (ii) The Federal role might well include collaboration in data collection, project planning, surveying and engineering studies at the request of the province or provinces concerned. (The Federal role in respect of navigation and fisheries was recognized.)
- (iii) Prime responsibility for financing resource development rests with the province (or municipality) but Federal assistance in the form of long-term loans, without proprietary interest or control, to self-liquidating projects and grants-in-aid to other projects should be made available.

General discussion suggested the desirability of a National Resource Development Fund from which the provinces could draw for specific projects. It was also suggested that reconsideration be given to policy with respect to the export of electric energy.

C. The discussion of public and private considerations indicated that developments along both lines are possible independently or in the same basin. A willingness to co-operate in achieving optimum use of the water resource and adherence to conditions provided in water licences would be necessary. The merits of term versus perpetual water licences were discussed without conclusion.

D. Time did not permit a detailed discussion of the types and functions of resource development agencies which could best serve the needs of particular river basins. However, the papers presented by the discussants on specific river basins (St. John, Ottawa and Nelson) indicated clearly that the need for a type of agency would vary for each river basin and each would have to be tailored to its own requirements.

WATER, WORKSHOP "C"

Achieving effective pollution control.

CHAIRMAN: J. W. T. SPINKS

The Chairman J.W. Spinks opened the meeting by stating that our purpose was to consider the various aspects of pollution control.

Water is one of the most important parts of our daily life and as population increases, water gets more polluted. It works in an inverse correlation.

There are two effects of water control to consider:

1. Purity of water from a health standpoint.
2. Purity of water for efficient operation of industry.

We must also consider an economic aspect of the problem.

Today's panel will discuss effects of pollution on health, animal life, recreation and industry.

The Vice-President, John S. Bates stressed four aspects of pollution for study: Quality, organization, human nature and practice. He stressed we must take a possible approach and clean up the water and not set stream classification standards which actually down grade the water. It is necessary to avoid the danger of too much technology. Look at the problem from a practical viewpoint, and come up with the solution and suggested that the probable answer would be a national organization.

Dr. A. E. Berry laid off the panel discussion by asking what is pollution? He defined pollution as anything which spoils the quality of water. He stated we must not take the extreme position of either pure water or dirty water but must strike a balance between them. He spoke of domestic sewage as being most important because it was a possible cause of the spread of diseases and pointed out that industrial wastes and municipal sewage are the main cause of pollution.

R. J. Hull stated he would speak on two aspects:

1. Industrial use of water; and
2. Public apathy to pollution.

The industrial problem has two aspects; its complexity and the reluctance of industry to face up to the problem. Originally we had large supplies of pure water but this is not so today and industry must adjust itself to meet this condition. If industry will not cooperate we must take stern measures. As the cost of pollution control is very high we must be prepared to spread it over a number of years.

Public Apathy

The public is not clean water conscious. They do not hesitate to dump any waste into the water. We must educate the public to the need for pure water. It is a problem which knows no political boundaries.

Mr. A. Lorne VanLuven discussed some of the answers to the questionnaire of the National Survey sponsored by the Canadian Institute on Sewage and Sanitation. The answers seem to indicate that industry was willing to cooperate in solving the problem and that a Federal agency to coordinate the work and pass the solutions down to the provinces and to the municipalities.

Dr. Gustave Prevost stressed the seriousness of the problem stating that once a stream or a lake became heavily polluted, in regard to a stream it was very hard to bring it back and in regard to a lake it was almost impossible.

In the discussion that followed, the following points were emphasized:

1. We must use affluent standards rather than stream classification;
2. Industry, when using municipal sewage facilities must bear its share of the cost.
3. Public education is needed before standards can be set and enforced.

WHAT SHOULD BE DONE

Dr. Berry has pointed out that it is necessary to have:

1. A clear knowledge of the problem
2. Public education
3. Cooperation between industry and municipality
4. Adequate legislation

5. Method of financing
6. Research

Mr. Hull has pointed out that better results are obtained from industry from education and cooperation rather than coercion, and that standards must be known to the new industries so that the necessary expenditures on sewage treatment can be included as a cost of production.

To achieve a better understanding from the public every means of communications should be utilized, television, radio, billboards, etc.

Mr. VanLuven has made some comments on the national survey, from which he found that there exists a need for research, and its application must be preceded by an education program. Furthermore, the consensus of opinion seems to favour the establishment of a national advisory council.

Dr. Prevost has mentioned that this work we are now doing must not stop at the end of this conference but must keep on. He also mentioned that the Quebec Purification Board will require sewage treatment, the degree of which will be independent from the condition or the flow of the receiving waters, so that everyone will be treated equal.

In the discussion from the floor, it was mentioned that Quebec was the only province to grant direct subsidies to the municipalities for sewage treatment facilities. "A" The other provinces guarantee the necessary loan but do not aid financially.

It was also mentioned that the Quebec Purification Board was adopting a standard of treatment rather than a standard of effluent. This is considered to be a unique approach, and seems unrealistic not to consider the natural capacity of a body of water to assimilate waste.

Regarding permits required from industries before they discharge wastes in a river, Ontario do not issue such a permit but British Columbia, Manitoba and New Brunswick do.

Before closing the morning session it was strongly emphasized that definite conclusions must be drawn from these discussions so that concrete suggestions may be submitted to the governmental agencies.

Recommendations

Following discussions in the water pollution control workshop, this committee wishes to make the following recommendations:

A) To the Government of the Dominion of Canada

1. We wholeheartedly endorsed the setting up of a "National Resources Council" as recommended by the Prime Minister.
2. That a water pollution control division be included in the "National Resources Council" composed of representatives from the eleven provinces.

This division should be empowered to institute:
 - a) Research programs
 - b) Collect, collate and analyze pollution control data from this and other countries
 - c) Coordinate the water pollution control objectives for the eleven provinces.
3. All new industries and municipalities be required to incorporate in their plans a method of controlling and/or eliminating their water pollution.
4. In the powers given to the "Water Control Authorities" shall be included the duty of promoting and developing educational programs at all levels on water conservation and pollution control.

FISHERIES WORKSHOP "A"

Introduction

The workshop in dealing with the problem of maintaining adequate stocks of fish accepted as a basis for its discussions four (4) categories of demand.

- (I) Continued high for species such as lobster, salmon, etc., in which the demand might be considered almost unlimited.
- (II) Substantial increase for species in which the demand might reasonably be expected to double in the next 20 years.
- (III) Increase
- (IV) Decrease

These categories were assigned to species on the basis of the forecasts in the working papers and the opinions of participants. The workshop recognized the possibility that species not now of major importance might become so but did not attempt to identify them.

Pacific Marine and Anadromous Fishes

Salmon

Continued high demand is forecast for supplies of sockeye, pink, chum, coho and chinook salmon for the commercial fishery, and of coho, chinook and some pink salmon for the sport fishery, also steelhead, cutthroat trout.

Substantially increased supplies of sockeye pinks and chums are possible from the increase of currently depleted runs to the point of maximum productivity. This can be achieved only by strict and selective regulation of fishing, supplemented by improvement of spawning facilities and perhaps locally by artificial propagation. Coho and chinook salmon offer rather small opportunities for increase.

For attainment of these objectives, the Working Group recommends:

- (1) that no additional uses of water on salmon rivers be initiated (e.g. for waste disposal or hydro-electric power), except such as are certain not to reduce salmon production;
- (2) that research be continued and intensified to learn the capacity of salmon to surmount obstructions and to tolerate polluting substances, to design fishways and by-passes for upstream and downstream migrants, so that present obstacles to migration may be remedied and future ones avoided;
- (3) that international regulation of Fraser River sockeye and pink salmon stocks be continued;
- (4) that the strongest efforts be made to continue existing regulations and agreements that prohibit high-seas net fishing for salmon in the eastern Pacific by Canada, the United States and Japan; and that other countries be discouraged from harvesting these already-fully-utilized fish;
- (5) that improvements of spawning and rearing areas be carried out wherever major benefits are possible.

Herring

For the present level of utilization, the supply of herring is sufficient and is likely to remain so. Some expansion is possible if demand increases.

The Workshop recommends that study of herring be continued, especially to determine the size of spawning stock needed for maximum average recruitment of each population, and to determine what environmental factors cause variation in year-class strength.

Halibut

Demand for halibut is likely to increase gradually, and some increase in production is possible. The Workshop recommends that international regulation by Canada and the United States be continued, and that efforts be continued to persuade other nations to abstain from entering this fishery because it is already being utilized to capacity.

It is also important that research be continued to define more closely the level of maximum sustained yield in each Area, and its possible fluctuations with environmental conditions.

Other Groundfishes (soles, cod, lingcod, rockfishes, etc.)

Gradual increase in demand is likely, and supplies of non-species will permit some expansion of production. We recommend that continued study be made to define the level at which each species or group will come into maximum production.

Oysters

Gradual increase in demand is likely, and supplies can be increased. The Workshop recommends that more intensive utilization of leased bottoms be encouraged, and research be continued on improved or new culture procedures.

Clams

Study of best utilization should be continued but no important increase in production is likely.

Crabs and Shrimps

Continued study is recommended to define the next level of utilization and locate possible new stocks.

Other Fishes

The Workshop recommends that some exploration and inventory be made of fishes that at present are not utilized or are little utilized, since it is likely that some additional species may be in demand in the future.

Mollusks and Crustaceans

Mollusks and crustaceans are expected always to be in high demand.

Scallops

The scallop fishery is most active on Georges Bank, where three nations now capture them. Increased competition may reduce future Canadian catches

Oysters

Increased supplies of oysters can come from more intensive utilization of leased beds and re-establishment of stocks depleted by disease. The Workshop recommends that study be continued of improved culture methods.

Clams

Certain populations are affected by pollution, and stricter control is required in some areas.

Lobsters

Conservation measures in use now permit this species to sustain itself at a good level of yield. The problem of poaching is serious in some regions, and requires further educational efforts as well as strict enforcement.

Salmon

The Atlantic salmon will continue to be in high demand in future.

The Workshop believes that undue pessimism about salmon is not warranted, and that adequate regulation with strict enforcement will permit it to maintain itself or even increase in most areas. It is necessary, however, that damage from forest spraying be overcome by discovery of new insecticides or new techniques, and increased attention should be given to this matter. Furthermore, complete utilization of a river such as the St. John for hydro-electric power may prove inconsistent with having salmon.

To increase productivity of salmon, the Workshop recommends the closest possible co-operation in regulation between federal and provincial governments and among the provinces themselves. In addition, increased planting of young fish is required on streams where spawning is inadequate.

Bottom Fishes

The bottom fishes - cod, haddock, hake, etc., - are of unequal importance but have two things in common: their populations are exploited by many nations, and are potentially subject to over-utilization.

The only protection they have at present is through the International Commission for the Northwest Atlantic Fisheries (ICNAF). The Workshop strongly recommends that minimum mesh regulations now in force be tested and altered if desirable, in order to increase total yield.

The collection of adequate statistics from all nations is most important. Rate of growth, age structure, catch per unit effort, etc., should be continuously studied to learn the level of maximum yield and to detect incipient depletion.

The above is particularly important for slow-growing species such as redfish, where decreases in yield from present levels must be anticipated.

Other Species of Fish

Certain species, notably mackerel, herring, smelt, halibut, and smaller flatfishes, were considered by the Workshop but no special recommendations were made - either because no acute problem exists or because they are not of major commercial importance. All should be kept under study.

FRESHWATER FISHERIES

An increasing demand is seen for the principal freshwater commercial and game fish, over large areas of Canada. The potential production and value of this resource are not known and the prospects of meeting the demand in these areas has not been assured. The fishery resources in these areas should be investigated before utilization.

In many of our established freshwater fisheries, there is not at present available enough biological knowledge to maintain some stocks or properly utilize others. The Workshop therefore recommends that the level of fishery investigations be increased. To ensure adequate support for this work, a clear demonstration of the value of our freshwater fisheries is essential. An economic survey of the sport fisheries is most desirable.

The freshwater environment and its inhabitants are extremely sensitive to man's activities. Recognition must be given to the fact that the maintenance of fish stocks, particularly the more desirable species is dependent on the maintenance of suitable environmental conditions.

WILDLIFE WORKSHOP B

AGENDA

Participants are reminded that the purpose of the discussion is to prepare recommendations. It is not our purpose to simply exchange views or review experiences. We should also remember the theme of this conference - "Resources for Tomorrow" - and give emphasis to ideas which will be important to developments in wildlife and general resources management over the next twenty years.

1. Status of Wildlife in Relation to Other Resources

Opportunities for utilization and for expanded utilization depend in part on the provision of space and habitat for production. Recognition of use by wildlife, in both legislation and practice, as a legitimate land use is basic to this concept.

What are our recommendations?

2. Maintaining and Improving Access in the Interest of Efficient Utilization

A. - Problems requiring solution in relation to access to:
public (Crown) land; public lands under lease (forestry and grazing); wilderness and hinterland areas; parks, private lands (farms and private lands in urban shadow).

B. - The role of public and private hunting and fishing areas in providing opportunities for utilization.

C. - The relation of aircraft, automobiles, boats and other vehicles to access and utilization.

What are our recommendations with regard to access?

3. Achieving Improved Utilization Through Land Management

A. - Relation of land-use to opportunities for utilization

B. - The role of multiple use programs -
(forestry, grazing, hunting, fishing, agriculture, parks and other recreational activities)

C. - Need for areas for single-purpose wildlife management

D. - The role of the private landowner (compensation for wildlife production and opportunities for utilization, dangers of commercialization.

4. Improving Techniques of Utilization

A. - improved utilization will depend on increased knowledge and skill of the users. This has two benefits. It increases the users' satisfaction and facilitates refined management. This will require better techniques in information and education programs.

B. - simplification and streamlining of licencing and regulations.

C. - should exotics be used to increase opportunities for utilization?

D. - addition of species to game list

E. - prospects for shifting pressure of utilization from one species to another or from one place to another.

F. - What are our recommendations?

5. The Contribution of Utilization of Wildlife to the Economy

- the fur trade

- wildlife in the economy of Indians and Eskimos

- utilization of secondary products - hides, antlers, feathers

- the need for an economic survey of wildlife values

7. Other suggestions

Wildlife, Workshop B will bring to Friday's session recommendation with the following import. At joint sessions on Friday with workshop A, recommendations from both workshops will be revised and integrated.

1. Establishment of an organization responsible for the domestic and foreign promotion of Canadian furs on a vigorous and continuing basis.
2. Equivalent recognition of wildlife values in the administration of all Crown owned lands and development of multiple-use of planning in co-operation with agriculture, Forestry, Water Resources and other agencies.
3. Recognizing that a large proportion of accessible game is raised and hunted on private land, this Workshop considers that all government agencies should study and develop ways and means of making the production of wildlife profitable to the landowner, while avoiding the danger of commercialism. Further that as soon as the scope and interpretation of ARDA are made known, active participation be implemented.
4. That each of the eleven governments should institute a coordinating committee to assure efficient planning and wise use of land, water and air.
5. Stressing to all governments in Canada the urgency of now acquiring land and water areas for the primary purpose of wildlife management and such other uses compatible with that primary objective. The urgency of acquiring additional lands lies in maintaining a wildlife supply in the face of heavier utilization, ensuring access to land for public hunting and obtaining the required land while still available at a reasonable price.
6. Where roads are government subsidized they should be open for public access.
7. That a survey of Federal & Provincial Park Game management policies be reviewed in the light of sound biological procedure.
8. The use of pesticides be critically appraised in conjunction with other agencies prior to formulating a coordinated long-range co-operative program.
9. That pollution controls be effected which recognize the aesthetic as well as the economic values.
10. That educational authorities include the principles of wildlife conservation in teachers' training schools and in school curricula.
11. That where governmental coordination of complimentary (supplementary) legislation is a requisite for game management a very close liaison be in effect between the province concerned and the Federal government. (e.g. recent changes in Fisheries Act and in acts regulating aircraft).
12. That a comprehensive National Survey (regionalized) of the economics of hunting and sport fishing in Canada be instituted with a basic formula acceptable to both economists and game management agencies.
13. That the Federal government adequately support wildlife research.

Reference should be made to the report of Workshop A for Assumptions and Definitions which are common to both sessions.

BENEFIT-COST ANALYSIS

Water Workshop B

The discussions in this Workshop centered upon two main topics.

- (a) The usefulness of benefit-cost analysis as a tool in decision-making.
- (b) The need for a set of standards to provide guidelines for those carrying out the analysis.

The lead-off speaker described the basic principles of benefit-cost analysis and illustrated their use with reference to the choice between two hydroelectric power programmes (the Columbia River and the Peace River) and a thermal power programme for satisfying power requirements in British Columbia. The author stressed the necessity to weigh alternative proposals, and to take into account all the relevant effects of the alternatives considered.

The first discussant emphasized the need for a set of standards which can be used by various authorities in Canada, at various levels of administration, and by private industry as well. He suggested that while much pioneering work had been done in the United States and elsewhere, on the development of benefit-cost analysis techniques, such techniques would have to be modified to take into account Canadian conditions. Specifically, he pointed out that the U.S. Green Book suggests that a "comprehensive national viewpoint" be used in benefit-cost analysis. In Canada, however, a provincial point of view is often more appropriate in evaluating projects. Secondly, projects in the United States are generally designed to satisfy the needs of already existing economic regions. Many of the projects in Canada however are "developmental" in character. Consequently, the time horizon is often greater and intangibles take on a particular significance. Thirdly, because the benefit-cost analysis approach has been used dominantly in evaluating water projects in the United States, little attention seems to have been given to the use of this technique in analyzing other projects. There seem to be many opportunities in Canada for using benefit-cost analysis for evaluating projects in addition to water resource projects.

The second discussant referred to a number of cases, particularly in Ontario, where the use of benefit-cost analysis would have been particularly valuable to the decision-maker. Such cases included the development of highways, provision of flood control, development of recreation facilities, and pollution abatement. He suggested that the failure to weigh alternatives, and to take into account broad economic effects, had resulted in large economic losses to the community. These losses assume particular importance when it is recognized that a benefit-cost analysis would only cost a small proportion of the total cost of the project, and might result in savings of many millions of dollars.

The discussions which followed these presentations highlighted a number of points relating to the usefulness of benefit-cost analysis and to the need for a set of standards which would guide decision-makers in the future. There was general agreement that benefit-cost analysis is a basically useful tool in project evaluation. While it has certain limitations, and it is sometimes difficult to apply, it is nevertheless an objective approach to the selection of projects. It was emphasized that benefit-cost analysis should be regarded only as a tool to be used in the decision-making process but not to replace that process. Other factors which are not taken into account in the analysis must be considered before decisions can be made.

Benefit-cost analysis is concerned with the evaluation of means of achieving given ends. It was suggested by some that benefit-cost analysis should be confined to projects of a similar kind. It was pointed out however that economic analysis provides a means of comparing projects with different purposes on a common basis.

The viewpoint from which the analysis is carried out is especially important. Analyses may incorporate local, provincial, regional, or national viewpoints, and they may reflect either public or private viewpoints. The factors taken into account, however, differ according to the viewpoint: for instance, secondary benefits are usually more important at the local level than at the national level. Accordingly, it is not possible to compare the results of analyses carried out from differing viewpoints.

Two of the particularly difficult problems of the analysis are those of taking into account secondary effects and intangibles. It is generally agreed that these effects can be especially important in certain projects. Broadly speaking, secondary effects are most important at the local level, where they are more easily identified and measured. At the national level, it can usually be assumed that secondary effects are offset somewhere in the economy. Where secondary effects are expected to be particularly great, they should be taken into account and included in the analysis. The same is true of intangibles.

The results of the analysis may be expressed in the form of a benefit-cost ratio. It must be remembered, however, that this ratio is a measure of relative merit and not absolute merit. In addition, care must be given in all cases to take full account of intangibles where these are likely to be of importance in the decision-making.

It was suggested that there are various statistical techniques available which will help to refine the procedures of the benefit-cost analysis. As yet these refined techniques have not been adopted but thought is being given to the uses which could be made of them. Meanwhile, however, the aim is to provide a logical frame-work within which the analysis can be carried out.

In conclusion, it was generally agreed that consideration should be given to the publication of a benefit-cost analysis handbook. A draft of such a handbook was prepared as an aspect of the research for "The Resources for Tomorrow" Conference. This draft will be considered by the Workshop at the Friday meeting.

RECREATION WORKSHOP B

Devising and Implementing Recreation Programs for More Effective Utilization of Renewable Resources

The chairman set the tone of the meeting by underlining the statement that this workshop dealt with people, with the programs necessary for their recreation and with the effect on renewable resources of these programs.

Mr. Pigott, lead-off speaker, again stressed the statement by saying that at all times we must be conscious of the individual. He stated the main objects of concern in this conference are:

1. to consider the area of present requirements, and
2. the need for future recreation programs.

At present there is a lack of co-ordination, planning and co-operation in both public and private fields.

Urban and industrial living is creating new demands for personal and psychological help through recreation, for family living, and for local organization and planning.

Population increase will demand a great supply of facilities close to home, in the nearby community, and further from home.

Many a resource seems too expensive to acquire and maintain when only one use is considered. By analyzing the multiple use of a resource a new light is thrown on the expense involved.

Already many areas near large centers of population are in use and it is too late to claim them for recreational purposes.

Because of technological development, many people have gone into specialized occupations and any development of personality must be relegated to off-time hours. Their very choice of leisure hours, if not dictated, is modified by technology.

Usually the description of recreation is not a broad one. He asked how well recreation leaders are prepared to stimulate new awareness in the field.

Recreation is of great personal and social significance, but determined approaches in the fields of education, information, statistics and research are called for.

In considering the subject "devising and implementing programs for a more effective utilization of renewable resources", certain definitions were accepted and certain assumptions made. Recreation was taken to be the constructive and worthwhile use of leisure time and public, private, voluntary and commercial agencies were defined and all were held to have important parts to play in recreation programs. It was assumed that more leisure and more money would be available to many and that a wide range of individual and group activities would result in substantially increased demands on natural resources, both in and near cities and in areas at a distance, even in places now considered too remote for use. It was assumed that recreational needs are as legitimate as any other when development of natural resources is undertaken for whatever purpose, and that all government levels have a responsibility for recreation programs. It was assumed that natural resources available for recreation are limited and that all urban areas are or will soon be pressing upon these limits.

There was discussion as to whether cultural, interpretative and indoor programs had a place in such a Workshop but because all such programs involve land use and many are tied to understanding and enjoyment of outdoor programs, the broadest interpretation was put on recreation.

It was apparent from the papers and from the discussions that a good deal of the necessary data and knowledge upon which to base programs and indeed policy decisions was lacking and the matters of research and inventory taking received attention immediately following the acceptance of basic assumptions. It was agreed that inquiries should be conducted into the effects of various leisure activities, the relationship between cultural patterns and choice of spare time activities, implications of technology upon leisure preoccupations, known and implied desires for off hour activities, motivation for selection of specific S activities and, in general, on recreation as a sociological phenomenon. For more immediate use, inventories of supply and demand, present leisure time activities, land use capabilities, present land use, historic sites and objects, program facilities in related institutions, and the development of criteria and standards for programs, selection of areas, development and management, selection and training of personnel, for deterring the relative roles of government and private agencies in the field, are overdue.

On the matter of how responsibility for research and inventories should be distributed and how financed, consideration was postponed until Friday. It was agreed that research with recreation should be undertaken by the universities as a subject for academic inquiry with probable support for government foundations by government departments small levels and by voluntary groups and commercial associations on the practical concerns, and the view was approved that a degree of cooperation was called for both in allocating and in conducting investigations and research.

Jurisdiction

The discussant for workshop B reiterated the purpose of the workshop by stating the title "Devising and Implementing Recreation Programs for a more effective utilization of renewable resources". He stated a "master plan for action was needed", but that before such a blueprint could be brought about, the following steps were necessary:

1. understanding of what we are really trying to accomplish in recreation.
2. a sense of where we are falling short in attaining our goals.
3. development of a master plan for action.
4. consideration of action that can be taken that will involve all agencies.

At present there is no understandable goal, no comprehensive plan, the relative roles of government private and voluntary agencies have never been defined.

Attention was drawn to the tremendous growth in recreation at all levels of government as well by voluntary and commercial agencies, naming some of the numerous agencies that exist in the field.

So often schemes are applied from above in order to get government grants that on the local level confusion results.

The conclusions are:

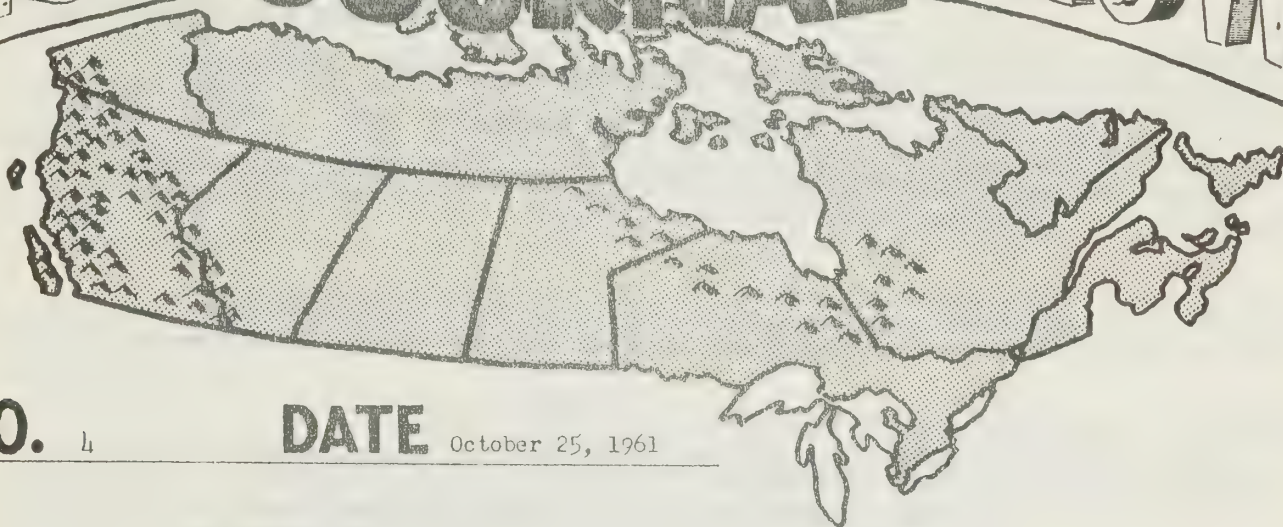
1. At any given government level the services should be brought together, at least in the form of a clearing house.
2. Some decision ought to be made as to what the different governments should be doing.
3. Some decision should be made as to what the voluntary agencies should be doing.
4. Some indication should be had as to the best structure to have all cooperating to the same ends.

On the matters of jurisdiction and organization, discussion was prolonged and, indeed, many apparently unrelated matters seemed to resolve themselves into these subjects. No comprehensive plan for recreation exists because the responsibilities are undefined and even the federal responsibility uncertain. There was a difference of opinion as to what ought to be the division of responsibility for recreation among governments and the relative importance of recreation to other claims on renewable resources. In an effort to resolve these matters, a tentative resolution recommending the establishment of a Resources Council with a Recreation Section charged with responsibility for a thorough study of recreation needs and for recommending necessary organization changes or innovations ran into objections based on an assessment of recreation as having a more important role than as an aspect of resources use. The workshop agreed that this effort to recommend the next step had hit on a vital issue that required more deliberation and the matter was deferred until the Friday sessions.

In summary, it was apparent that demand for and use of natural resources for recreation have grown and will grow, that there is a lack of communication and overall purpose in administration of recreation, leading to a need for study and overhaul of organization but that the next step is not immediately obvious, and that there is a difference of approach and opinion between those who are primarily engaged in recreation programs and those whose responsibility is essentially that of conservation of resources.



RESOURCES FOR TOMORROW JOURNAL



NO. 4

DATE October 25, 1961

WEDNESDAY WORKSHOPS CONSIDER PROBLEMS COMMON TO ALL RESOURCE SECTORS

On Tuesday, Conference participants met in their various Resource Sectors to consider special and general problems within each Sector. On Wednesday, participants proceeded to a consideration of the problems common to all Sectors, drawing upon the experience of each Sector.

In the fields of management, research, jurisdiction, administration and information-education, problems affecting the future development of Canada's renewable resources were intensively discussed and courses of action recommended. It is obvious that on the third day of the Conference, workshop members were beginning to hit their proper stride.

RAPPORTEURS are reminded that amplified reports on Tuesday's workshops (for the record of proceedings) should be turned in to room 340 today. Be sure to include:

- a) Corrected copies of all papers or prepared texts.
- b) Copies of assumptions and principles agreed upon.
- c) Summaries of discussion, dissent and consensus.
- d) Conclusions and proposals if any.

LADIES

Friday at 3:30 - 4:30 you are invited to afternoon tea

in the Panorama Room - an opportunity to see this towering city at its most glamorous. Come for your own pleasure and give Resources for Tomorrow the pleasure of having you as guests.

NOTICE WATER WORKSHOP "A"

Members of this workshop are notified that it is proposed to reconvene on Friday 9 a.m. in Salle Harricana

RESEARCH - WORKSHOP "B"

Introduction

Dr. H.F. Lewis presented abstracts from Tuesday's workshops where papers presented and opinions expressed reflected or dealt directly with the question of research organization.

Presentations

The question of whether or not serious deficiencies exist in the way in which research activities are organized was dealt with very ably by Dr. A.G. McCalla, who in his paper presented conclusive evidence substantiating the fact that deficiencies do exist and recommended establishment of a Renewable Resources Research Council. The paper further recommended that research be taken from direct government control. Mr. D. Kendall stressed in his paper, the fact that surveys and collection of data should also be considered research and proceeded to point out that as a nation we lag sadly behind the United States and the United Kingdom with respect to financial contributions to research.

Other evidence of research deficiencies was produced by Professor J.L. Robinson, who stated that duplication, which could be condoned at university level, constituted a wasted effort when conducted governmentally. The paper also emphasized the need for research on man's relationship to the land.

Dr. J.R. Dymond presented a paper stressing the lack of proper arrangements for bringing together representatives of all research agencies at frequent intervals in order to exchange information on research needs, methods and results. He expressed apprehension lest the federal government appear to dominate and direct research activities. He said, "What we need is not a federal but a co-operative agency".

Dr. D.R. Redmond described the existing organizations dealing with forest research and stressed the need for continuity in research.

Analyses

The discussion then continued on the following matters:

1. Lack of co-ordination between research agencies;
2. Need for close and interdisciplinary relations;
3. Need for decentralization and co-operation;
4. Overlapping in research;
5. Deficiencies of communication;
6. Need for close liaison between research and local management;
7. Adverse effect of isolation on research workers;
8. Need for research relating to policy;
9. Support of university research by industry;
10. Water research on eastern slopes of the Rocky Mountains;
11. Research on water of the Great Lakes;
12. Research on industrial pollution;
13. Organization of Fisheries Research Board;
14. Co-ordination of Arctic research;
15. Study of resources not already being utilized;

16. Allocation of research funds;
17. Use of data processing machines at central points;
18. Human motivation research.

Resolutions

The following resolutions were adopted:

1A. This workshop considers that research in the fields of renewable resources would profit from reorganization that will provide for:

- (a) More adequate basic research, especially in universities and for the education of graduate students;
- (b) More adequate opportunity for co-operation in interdisciplinary research;
- (c) More adequate co-operation and co-ordination of research in individual sectors by means of regular meetings and discussions;
- (d) More adequate provision for the prosecution on any research that is required in the use of resources for tomorrow;

B. It seems possible that these aims could be best attained by the following:

- (a) The establishment of a Renewable Resources Research Council along the lines of the National Research Council but modified to take account of the different nature of the research in these areas and of the research agencies already in these fields;
- (b) The systematic establishment of co-ordinating groups for each sector that would include all agencies concerned with research in this sector.

2. Whereas the limited participation of industry in resource research suggests the desirability of exploring ways and means whereby such participation in research by industry may be increased.

Therefore it is resolved that consideration be given to provide funds for grants to selected industries in the areas of applied research and development, and further it is suggested that a scheme such as that used by N.R.C. for giving funds to universities be considered in this connection.

FISHERIES B WORKSHOP

ATTAINING MORE EFFICIENT OPERATIONS IN THE FISHING INDUSTRY.

The presentations of the lead-off speaker and discussants.

Mr. C. J. Morrow, the lead-off speaker, began the workshop with the general observation that although many groups existed for the discussion of fisheries problems, neither individually or collectively had they been able "to clearly set out the problems of the fishing industry in terms which would lead to a logical program for more efficient operations in the future". Contributing to this inability to grasp "the basic pattern for sound development" were the complexity of the industry and its declining role in the Canadian economy.

The competitive structure of the industry is not a basic fault and low profits testify to the narrow margin of operations. In fact, the low profits and current tax laws combine to discourage capital investment and are in part responsible for slow progress. Decreased competition between sellers on export markets and more orderly marketing could result in larger returns to both fishermen and industry.

Although there exist possibilities for increased catches of many species, it is doubtful if the future intensity of fishing by vessels of foreign countries can be predicted. Nevertheless it seems likely that we will continue to be able to meet any increased demand in the Canadian and United States markets. We should enlarge our attempts to increase per capita consumption of fish.

There are indications of economic inefficiency in fisheries of both coasts, - too many men, too many small units of gear, and seasonal operations of processing plants. Education at all levels is needed to ensure technological progress.

The discussants, Messrs. H. Stevens and E. M. Gosse, agreed with the view that the fishing industry is at present economically inefficient and made a variety of suggestions for ways of curing the industry's ailments. Mr. Stevens advocated license limitation for certain fisheries as a device for increasing economic return, a view strongly developed in the background paper by Professor Crutchfield. It was suggested that part of the saving so effected could be diverted into improvement of salmon fisheries and greater research expenditures. Problems of readjustment for fishermen were serious and demanded government consideration. Expansion into new fisheries would create employment, ease current hardship resulting from seasonal fisheries, and improve our international position in world sea fisheries competition. Means must be found for marketing our fish in areas of overpopulation. "Co-operative development and public ownership and control" were suggested as perhaps the "only logical means" of making most efficient use of fisheries resources.

Drawing examples from the Newfoundland fisheries, Mr. Gosse re-emphasized the problems of international fishing fleets, government aid programs, education, research, regional economic patterns, marketing and competition. He advocated orderly marketing and education of fishermen as two important areas for study.

Mr. J. G. Cowan briefly reviewed the similar types of problems confronting the inland fisheries.

Nature of Problem.

In a general discussion of the nature of the problem of attaining more efficient operations, inefficiencies in fishing and processing operations were recognized.

In fishing operations, inefficiency results from three major causes. These are ineffective use of labour and capital, the seasonal nature of most fishing operations, and the inadequate fishing methods in many areas.

In most commercial fisheries Canada has too many fishermen and too much capital devoted to present levels of fish production. This results from the common property nature of the resource and the unrestricted right of entry of Canadian fishermen in most fisheries.

Seasonal inefficiencies of fishing operations result from such causes as fluctuations in fish abundance, changes in weather and ice conditions for fishing, effects of fisheries regulations which are designed to conserve the fisheries, and the limited diversity in the number of species and areas fished.

Fishing methods are inadequate in many regions. Traditional fishing gears have not been adequately replaced with the most efficient gears now available. Fishing craft have increased in size, but relatively few are large enough or sufficiently well equipped for year-round, mobile, flexible,

centralized operations. Other inefficiencies result from inadequate fleet organization, collection and transportation of fish to processing plants.

In processing operations we find modern mechanized fish plants in all areas, but we still find inefficiencies related to the primary fishing and the tertiary marketing levels of fish production.

Fish production fluctuates widely and in an unpredictable manner from year to year. These annual changes together with the difficult seasonal nature of fishing operations noted above constitute a most serious problem of risk and inefficiency for the processing industry.

Inadequate marketing includes a number of problems. Increased demand has been limited by numbers of consumers. Per capita fish consumption does not appear to be increasing with improvements in variety and quality of fisheries products. Promotion of fish sales has been on a small scale compared with many other food products. There is certainly room for improvement in marketing procedures to avoid problems in stability of fish prices.

The Workshop recognized the problems resulting from international competition in fisheries. Competition for exploitation of resources in international waters leads to changes in the abundance and sizes of fish available to Canadian fishermen. This is resulting in reduced economic returns for effort expended in fishing.

International competition is also important in the marketing of fish, particularly in export markets. Foreign competitors of Canadian industry are catching fish with efficient methods which are often subsidized by Government. In order to continue high exports of fish it is necessary to sell fish of high quality at competitive prices. This makes increased efficiency of all operations essential.

The Workshop noted the lack of clear understanding concerning the Canadian policy for fisheries. Many programs in Fisheries, Transport, Labour and Public Works Departments of the Federal Government, and in the Provincial Governments, are encouraging more efficient fishing and processing operations. These include research development, education, inspection, consumer, insurance, harbour development, subsidy, loan and trade programs. It was noted that increased integration of these programs into a national policy is desirable.

RECOMMENDATIONS

1. Fisheries regulations

A major problem in the fisheries arises from the free or nominal cost of rights to exploit a common property resource. This problem is most sharply pointed up in those fisheries where there is relative scarcity of supply with the consequences of entry of too many fishermen, together with excess investment of capital.

The Workshop recommends that government fisheries policy in future be designed to bring about greater efficiency in the use of manpower and capital. In other words, policies should be devised to encourage the taking of the optimum catch as this is related to satisfactory economic returns throughout the industry. The Workshop further recommends intensification of research in the fields of economics and technology to provide a basis for implementation of this objective.

2. Development of the Fisheries

The meeting took note of the increasing competition to Canada from a number of countries in taking certain fish stocks. Without suggesting a large-scale expansion into the sea fisheries, it was nevertheless the opinion of the Workshop that Canada might find opportunities for increased catches if more direct assistance in exploratory and experimental fishing were undertaken.

The Workshop recommends that exploratory fishing expeditions be undertaken for the purpose of finding stocks and also discovering the best means of taking these.

3. Education

The needs in the fisheries for improvement in the skills of all those connected with fisheries occupations was agreed. It was noted that policies for education and extension work for fisheries might vary regionally and that requirements would dictate the kinds of programs adopted. Nevertheless there was a consensus that training for the fisheries in particular disciplines and techniques should be a co-ordinated effort within regions. There was notation also of the need for training programs to be related to programs of government assistance and to technological change within the industry.

The Workshop recognized the necessity of more fishery science at all levels, engineering, technical and adult, and recommend a well coordinated scheme of fisheries education at these three levels in order to ensure better application of research and science to the industry.

4. Processing Operations

As in most industries, instances of inefficient operations can be found in fish processing. It was agreed that having regard to the conditions under which the industry operates, its efficiency is relatively high. The chief limitations to improved efficiency arise from seasonal and year-to-year variations in supplies of the raw material.

The Workshop recommends that further increases in efficiency in processing operations be facilitated. As appropriate increases in efficiency may be achieved by greater centralization, flexibility in fleets, supplying the plants so as to reduce seasonal and year-to-year variations in supply, industry and government research programs should continue to work to improve and develop products of the fisheries.

5. Marketing

Problems relating to the marketing of Canadian fishery products abroad were recognized as intricate and complicated. It was observed that the government was undertaking a number of special trade missions in an endeavor to expand existing markets and to find new markets for fisheries products.

The development of the domestic market could provide opportunities for the Canadian industry. Much more needs to be known about food habits of Canadians, however, before any large-scale market development program can be planned. This program should be developed largely by industry after research and investigations by government.

The Workshop supports and requests continuation of the export market expansion program; it recommends that detailed surveys be undertaken of the domestic market for fisheries products.

6. Territorial Waters

The Workshop agreed that questions of territorial waters play a significant role in determining the success and efficiency of Canadian fishing operations. They recognize however that many considerations other than fisheries are involved, including international relations of a complex nature. The meeting recognized a distinction between the problem of territorial waters and that of Canadian exclusive fishing zones. The Workshop commends the policies which the Canadian Government have been pursuing in this regard.

7. Further Resources for Tomorrow Conferences

Recognizing the value of the discussions which have been held, the Workshop commends those responsible for the conference and recommends that consideration be given to the organizing of further conferences of this kind. It is recommended that although the contributions of academic and civil service are valuable and are appreciated, a greater degree of participation by people engaged in commercial fishing operations would be desirable.

RECREATION - WORKSHOP "A"

In conducting a workshop on the topic, "Providing an Adequate Resource Base for Public Recreation", consideration was given to the meaning of the two words used consistently during the deliberation.

"Conservation" implies full but prudent use of natural endowments, with people as the most valuable resource of all. "Recreation" means simply re-creation in its many forms, and is wide ranging in scope.

On the subject of recreation, the approach must be as Canadians, not as residents of any particular province. Similarly, conservation must be considered in the broad sense; in other words, it must be recognized that recreation, agriculture, forestry, soils, water, fisheries, wildlife, mining, energy and people are inseparable.

This workshop established that: recreation is a legitimate form of land use as are other resources such as agriculture, forestry and wildlife; the multiple-use theory should govern decisions in land-use claims, subject to the theory of prior-use; physical, mental and spiritual recreation needs form the total essential to Canadians. Fundamental research programs must be initiated immediately under Federal and Provincial auspices. Administrative, jurisdictional and educational guide-lines were established to some extent.

Unanimous agreement was reached on a number of basic assumptions in respect to the nature of public recreation facilities. ~~They were.~~

There will be a substantial increase in the demand; a wide range will be required; there is a uniformity of demand across Canada; development is needed on a public, private and commercial basis; there is, and will continue to be, an intensive demand for regional facilities within a 50 to 75-mile radius of large urban centres, including travelways, destination areas and indoor recreation facilities.

In respect to the nature of renewable resources, it can be assumed that the supply in the forest belt of Canada for leisure time use is not unlimited; the supply in agricultural and urban regions is critical; uneven population levels results in uneven demand; physical characteristics limit the potential of the resource base, and special requirements are a limiting factor.

Recreation Workshop "A" assumed further that availability of resources is related directly to advances in transportation facilities; resources can only withstand a certain pressure, beyond which there is deterioration or destruction; resources once lost to non-compatible uses rarely can be recovered for, or restored to, recreational use; recreation partnership at all levels of government is required; in the event of conflict in resource use, the public need should have precedence over private and commercial interests.

The lead-off speaker, A.R. MacDonald, pointed out that the demand for all types of recreation facilities will continue unabated, by local, regional, provincial and foreign residents. Basic demands are generated by social, economic and technological factors.

In administration, there appears to be five factors impeding progress in recreational planning: lack of unification of effort, lack of co-ordinated approach; lack of clear-cut areas of responsibility; lack of basic information, and lack of unified administration.

There is apparently no clearly defined area of jurisdiction in recreation at each level of government.

The management factor is affected by an apparent need for authorities and governments to give greater recognition to the status of recreation as well as to that of the other resource users.

Parks and recreation departments and agencies must be represented in the planning and administrative machinery set up for reservoir and conservation area development.

In consideration of the research aspect of recreation needs, it was emphasized that accurate information is required in planning and decision-making.

One of the most important considerations is the provision of an adequate resource base for public recreation is the lack of awareness of the complexity of the factors involved.

The public, especially opinion-leaders and decision-makers, must be cognizant of the social and economic values of renewable resources, and be able to evaluate development and management practices.

A recent survey of publications of provincial resource agencies indicated that there was a lack of educational material.

The first discussant, C.S. Brown, said the federal government's Agriculture Rehabilitation and Development Act can be useful in determining the provision of an adequate resource base for recreation.

He pointed out that problems in regional recreation development go far beyond the need for the simple sharing of financial responsibilities between provinces and municipalities.

He suggested that information and education area of primary importance in the development of an adequate resources program. Public support is necessary to such development, and an informed public is necessary to win support.

The second discussant, W.W. Danyluk, referred to a lack of co-ordinated planning, and questioned where the responsibilities of each level of government begin and end. There must be an allocation of responsibilities. There was subsequent agreement among workshop members that there should be primitive wilderness areas set aside for future scientific and recreational needs; that family recreation should be emphasized because it helps to strengthen family ties.

There was a suggestion that there is an immediate and continuing need to remove, and to avoid, the pollution of natural waters so that they may be used for recreational swimming and bathing.

In consideration of research, there was unanimous agreement that there is inadequate knowledge of the potentialities and limitations of the supply of renewable resources and of the nature and extent of recreation programs offered by public and voluntary agencies.

A comprehensive research program is needed, to include a recreational land-use inventory, recreational program inventory, travel surveys, resource capability inventory, and a study leading to the establishing of standards for planning the development and management of public facilities.

The workshop agreed also opportunities should be created for universities, governments and private organizations to undertake a wide range of research projects and programs.

The necessary research program requires co-operative and united action by all levels of government if it is achieve its purpose, and some central agency is necessary to co-ordinate activities and disseminate information.

The study of administration resulted in agreement that an inter-departmental committee, some type of land utilization board and a regional planning authority should be established to overcome inadequate co-ordination and co-operation in the management and development of the resource base.

Further, inadequate co-ordination and co-operative action between departments on all government levels responsible for the development and management of resources, and those responsible for devising and implementing recreation programs, creates problems and wastage.

To offset this, it would appear desirable to establish inter-departmental committee again on all government levels to co-ordinate activities between agencies of this type; establish park and recreation agencies designed to bring all activities under a single administration.

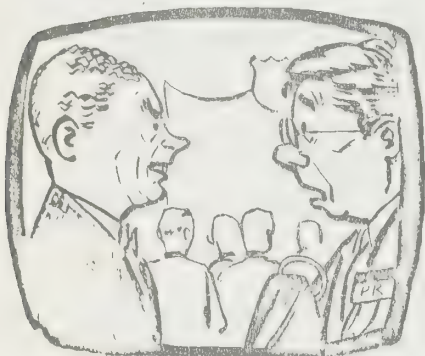
During study of information and education, the workshop members agreed that there is a need for co-ordination of the varied recreation programs: for a non-government organization to promote the interests of park development; for an exchange of information between government administrators.

To overcome a shortage of trained personnel in the recreation field, educational facilities should be provided, including: short-term course opportunities on a national and regional basis for park supervisors; development of degree courses for park personnel; further development of degree courses at the university level for recreation personnel.

RECREATION WORKSHOP B

Devising and Implementing Recreation Programs for More Effective Utilization of Renewable Resources

The chairman set the tone of the meeting by underlining the statement that this workshop dealt with people, with the programs necessary for their recreation and with the effect on renewable resources of these programs.



HAS THE P.M.

ARRIVED YET?

Mr. Pigott, lead-off speaker, again stressed the statement by saying that at all times we must be conscious of the individual. He stated the main objects of concern in this conference are:

1. to consider the area of present requirements, and
2. the need for future recreation programs.

At present there is a lack of co-ordination, planning and co-operation in both public and private fields.

Urban and industrial living is creating new demands for personal and psychological help through recreation, for family living, and for local organization and planning.

Population increase will demand a great supply of facilities close to home, in the nearby community, and further from home.

Many a resource seems too expensive to acquire and maintain when only one use is considered. By analyzing multiple use of a resource a new light is thrown on the expense involved.

Already many areas near large centres of population are in use and it is too late to claim them for recreational purposes.

Because of technological development, many people have gone into specialized occupations and any development of personality must be relegated to off-time hours. Their very choice of leisure hours, if not dictated, is modified by technology.

Usually the description of recreation is not a broad one. He asked how well recreation leaders are prepared to stimulate new awareness in the field.

Recreation is of great personal and social significance, but determined approaches in the fields of education, information, statistics and research are called for.

In considering the subject "devising and implementing programs for a more effective utilization of renewable resources", certain definitions were accepted and certain assumptions made. Recreation was taken to be the constructive and worthwhile use of leisure time and public, private, voluntary and commercial agencies were defined and all were held to have important parts to play in recreation programs. It was assumed that more leisure and more money would be available to many and that a wide range of individual and group activities would result in substantially increased demands on natural resources, both in and near cities and in areas at a distance, even in places now considered too remote for use. It was assumed that recreational needs are as legitimate as any other when development of natural resources is undertaken for whatever purpose, and that all government levels have a responsibility for recreation programs. It was assumed that natural resources available for recreation are limited and that all urban areas are or will soon be pressing upon these limits.

There was discussion as to whether cultural, interpretative and indoor programs had a place in such a Workshop but because all such programs involve land use and many are tied to understanding and enjoyment of outdoor programs, the broadest interpretation was put on recreation.

It was apparent from the papers and from the discussions that a good deal of the necessary data and knowledge upon which to base programs and indeed policy decisions was lacking and the matters of research and inventory taking received attention immediately following the acceptance of basic assumptions. It was agreed that inquiries should be conducted into the effects of various leisure activities, the relationship between cultural patterns and choice of spare time activities, implications of technology upon leisure preoccupations, known and implied desires for off hour activities, motivation for selection of specific activities and, in general, on recreation as a sociological phenomenon. For more immediate use, inventories of supply and demand, present leisure time activities, land use capabilities, present land use, historic sites and objects, program facilities in related institutions, and the development of criteria and standards for programs, selection of areas, development and management, selection and training of personnel, for determining the relative roles of government and private agencies in the field, are overdue.

On the matter of how responsibility for research and inventories should be distributed and how financed, consideration was postponed until Friday. It was agreed that research with recreation should be undertaken by the universities as a subject for academic inquiry with probable support for government foundations by government departments small levels and by voluntary groups and commercial associations on the practical concerns, and the view was approved that a degree of cooperation was called for both in allocating and in conducting investigations and research.

Jurisdiction

The discussant for workshop B reiterated the purpose of the workshop by stating the title "Devising and Implementing Recreation Programs for a more effective utilization of renewable resources". He stated a "master plan for action was needed", but that before such a blueprint could be brought about, the following steps were necessary:

1. understanding of what we are really trying to accomplish in recreation.
2. a sense of where we are falling short in attaining our goals.
3. development of a master plan for action.
4. consideration of action that can be taken that will involve all agencies.

At present there is no understandable goal, no comprehensive plan, the relative roles of government private and voluntary agencies have never been defined.

Attention was drawn to the tremendous growth in recreation at all levels of government as well by voluntary and commercial agencies, naming some of the numerous agencies that exist in the field.

So often schemes are applied from above in order to get government grants that on the local level confusion results.

The conclusions are:

1. At any given government level the services should be brought together, at least in the form of a clearing house.
2. Some decision ought to be made as to what the different governments should be doing.
3. Some decision should be made as to what the voluntary agencies should be doing.
4. Some indication should be had as to the best structure to have all cooperating to the same ends.

On the matters of jurisdiction and organization, discussion was prolonged and, indeed, many apparently unrelated matters seemed to resolve themselves into these subjects. No comprehensive plan for recreation exists because the responsibilities are undefined and even the federal responsibility uncertain. There was a difference of opinion as to what ought to be the division of responsibility for recreation among governments and the relative importance of recreation to other claims on renewable resources. In an effort to resolve these matters, a tentative resolution recommending the establishment of a Resources Council with a Recreation Section charged with responsibility for a thorough study of recreation needs and for recommending necessary organization changes or innovations ran into objections based on an assessment of recreation as having a more important role than as an aspect of resources use. The workshop agreed that this effort to recommend the next step had hit on a vital issue that required more deliberation and the matter was deferred until the Friday sessions.

In summary, it was apparent that demand for and use of natural resources for recreation have grown and will grow, that there is a lack of communication and overall purpose in administration of recreation, leading to a need for study and overhaul of organization but that the next step is not immediately obvious, and that there is a difference of approach and opinion between those who are primarily engaged in recreation programs and those whose responsibility is essentially that of conservation of resources.

WORKSHOP REPORT : WATER "C": Achieving effective pollution control.

The Chairman J. M. Spinks opened the meeting by stating that our purpose was to consider the various aspects of pollution control.

Water is one of the most important parts of our daily life and as population increases water gets more polluted. It works in an inverse correlation.

There are two effects of water control to consider:

1. Purity of water from a health standpoint.
2. Purity of water for efficient operation of industry.

We must also consider an economic aspect of the problem.

Today's panel will discuss effects of pollution on health, animal life, recreation and industry.

The Vice President John S. Bates stressed four aspects of pollution for study: Quality, organization, human nature and practice. He stressed we must take a possible approach and clean up the water and not set stream classification standards which actually down-grade the water. It is necessary to avoid the danger of too much technology. Look at the problem from a practical viewpoint and come up with the solution and suggested that the probable answer would be a national organization.

Dr. A. E. Berry led off the panel discussion by asking what is pollution? He defined pollution as anything which spoils the quality of water. He stated we must not take the extreme position of either pure water or dirty water but must strike a balance between them. He spoke of domestic sewage as being most important because it was a possible cause of the spread of diseases and pointed out that industrial wastes and municipal sewage are the main cause of pollution.

R. J. Hull stated he would speak on two aspects:

1. Industrial use of water; and
2. Public apathy to pollution.

The industrial problem has two aspects; its complexity and the reluctance of industry to face up to the problem.

Originally we had large supplies of pure water but this is not so today and industry must adjust itself to meet this condition. If industry will not cooperate we must take stern measures. As the cost of pollution control is very high we must be prepared to spread it over a number of years.

Public Apathy

The public is not clean water conscious. They do not hesitate to dump any waste into the water. We must educate the public to the need for pure water. It is a problem which knows no political boundaries.

Mr. A. Lorne VanLoven discussed some of the answers to the questionnaire of the National Survey sponsored by the Canadian Institute on Sewage and Sanitation. The answers seem to indicate that industry was willing to cooperate in solving the problem and that a federal agency to coordinate the work and pass the solutions down to the provinces and to the municipalities.

Dr. Gustave Prevost stressed the seriousness of the problem stating that once a stream or a lake became heavily polluted, in regard to a stream it was very hard to bring it back and in regard to a lake it was almost impossible.

In the discussion that followed the following points were emphasized:

1. We must use effluent standards rather than stream classification;
2. Industry, when using municipal sewage facilities must bear its share of the cost;
3. Public education is needed before standards can be set and enforced.

WHAT SHOULD BE DONE

Dr. Berry has pointed out that it is necessary to have:

1. A clear knowledge of the problem
2. Public education
3. Cooperation between industry and municipality
4. Adequate legislation
5. Method of financing
6. Research.

Mr. Hull has pointed out that better results are obtained from industry from education and cooperation rather than coercion, and that standards must be known to the new industries so that the necessary expenditures on sewage treatment can be included as a cost of production.

To achieve a better understanding from the public every means of communications should be utilized, television, radio, billboards, etc.

Mr. VanLuven has made some comments on the national survey, from which he found that there exists a need for research, and its application must be preceded by an education program. Furthermore, the consensus of opinion seems to favour the establishment of a national advisory council.

Dr. Prevost has mentioned that this work we are now doing must not stop at the end of this conference but must keep on.

He also mentioned that the Quebec Purification Board will require sewage treatment, the degree of which will be independent from the condition or the flow of the receiving waters, so that everyone will be treated equally.

In the discussion from the floor it was mentioned that Quebec was the only province to grant direct subsidies to the municipalities for sewage treatment facilities. "A" The other provinces guarantee the necessary loan but do not aid financially.

It was also mentioned that the Quebec Purification Board was adopting a standard of treatment rather than a standard of effluent. This is considered to be a unique approach, and seems unrealistic not to consider the natural capacity of a body of water to assimilate waste.

Regarding permits required from industries before they discharge wastes in a river, Ontario do not issue such a permit but British Columbia, Manitoba and New Brunswick do.

Before closing the morning session it was strongly emphasized that definite conclusions must be drawn from these discussions so that concrete suggestions may be submitted to the governmental agencies.

Recommendations

Following discussions in the water pollution control workshop, this committee wishes to make the following recommendations:

A) To the Government of the Dominion of Canada

1. We wholeheartedly endorsed the setting up of a "National Resources Council" as recommended by the Prime Minister.
2. That a water pollution control division be included in the "National Resources Council" composed of representatives from the eleven provinces.

This division should be empowered to institute:

- (a) Research programs
- (b) Collect, collate and analyze water pollution control data from this and other countries
- (c) Coordinate the water pollution control objectives for the eleven provinces.

3. That the "National Resources Council" study water pollution control problems of a national character.

B. To the Governments of the eleven Provinces

1. Each Provincial Government, which has not so done, should pass legislation setting up a "Water Control Authority" empowered to control and/or prohibit water pollution in the Province.
2. This "Water Control Authority" should assess and analyse individual problems regarding water pollution from industries and municipalities already established in order to adopt a cooperative program to control and/or prohibit pollution.
3. All new industries and municipalities be required to incorporate in their plans a method of controlling and/or eliminating their water pollution.
4. In the powers given to the "Water Control Authorities" shall be included the duty of promoting and developing educational programs at all levels on water conservation and pollution control.

ADMINISTRATION "A"

How do we Improve Interdepartmental Cooperation for More Effective Resource Management?

The workshop began by accepting the following assumptions:

- (1) Canadian resource administrators will continue to operate under a federal system.
- (2) There is a general disposition toward intergovernmental and interdepartmental co-operation.
- (3) Co-operation should extend over all fields of resource administration.

The lead-off paper by Dr. John M. Gaus stated that the problem of co-operation implied

- (a) the widened delegated and discretionary powers affecting policy and operations left to administrative personnel; and
- (b) their consequent increased responsibilities in formulation of policy through recommendations to the next higher authority in the line of decision, and through directives, interpretations and instructions within powers delegated to them, to the next lower authority in the two-way flow of department business.

It also implied fairly general agreement that all three traditional levels of government must be utilized in comprehensive natural resources policy, both for constitutional reasons and for relating national policy to regional and local conditions.

Two discussants amplified Dr. Gaus's paper with particular reference to experience in two provinces. Several methods suggested by Dr. Gaus for achieving co-operation, including the budget process, were discussed. The workshop considered organizational arrangements which might achieve co-operation between governments and within governments. Evolving out of the discussion two propositions were placed before the workshop:

- (1) Cooperation would be facilitated by the establishment of a national resources policy committee, consisting of adequate ministerial representation from the federal and provincial governments, supported by their technical advisers, and with a permanent secretariat to
 - (a) operate a clearing-house for information on resource development;
 - (b) prepare, in conjunction with other agencies of government, reports and suggested courses of action for the policy committee; and
 - (c) to arrange periodic national resource conferences.
- (2) Co-operation would also be facilitated if the federal government and each provincial government were establish effective administrative means, appropriate to its own structure, to formulate integrated policies and co-ordinate resource development programs.

Discussion

The workshop recognized that there were already many instances of co-ordination among departments of government within any given resource field. There were also instances reported of co-ordinated resource administration in some provinces.

The workshop then examined the two propositions placed before it. With respect to the first proposition, that is, a national policy committee of ministers, the workshop considered that the committee's role should be to plan and to co-ordinate programs and not to make executive decisions on their implementation. There was general agreement that the committee should have adequate ministerial representation from the federal and provincial governments. As to the number of ministers that might represent each government, there was some difference of opinion. There was complete agreement on the second proposition, that is, that each government should organize within its own framework the co-ordination of its own resource development programs. The workshop emphasized that the fullest possible use ought to be made of existing administrative arrangements within governments to achieve this co-ordination.

ADMINISTRATION - WORKSHOP B

Getting longer term perspectives and plans in
the administration of renewable resource programs



MAY I SEE YOUR
WORKSHOP CARD?

The lead-off speaker, Dr. Hugh Keenleyside, reviewed the administration of renewable resources in Canada, noting the importance of the constitutional division of jurisdiction. He outlined some of the earlier approaches to conservation and the emergence of new problems such as water and air pollution and land classification. In discussing financial arrangements, he suggested the creation of a National Development Fund related to annual national income. He said that in the resource field, past expediency must be replaced by integrated planning.

Dr. Ross Lord discussed the role of local conservation authorities and emphasized the importance of participation and the necessary support of private individuals in any multi-purpose plan.

Mr. D.W. Gallagher described some of the problems arising from heavy provincial responsibility for the resource development regardless of their financial ability. He felt that resource development regardless of their financial ability. He felt that resources should be developed within a flexible national framework recognizing the magnitude of each province's fiscal need.

The group, in discussing the extent of present government planning, noted a wide range of plans scattered through the resource field many lacking specific performance targets. Only recently have governments made a beginning to integrated resources planning. The principal obstacles have been the lack of funds and limited public interest. Economic conditions are always a limiting factor. There is still a lack of coordination among various agencies within governments as well as between levels of governments. It was questioned whether in fact the federal government can be reasonably expected to carry out longer term planning in areas where it has little or no jurisdiction. On the other hand, it appears that governments have been relatively successful in planning for sectors in which they have direct control up to the level of implementation.

A number of examples were cited of the failure to take the long term view. For instance, the pollution of many important waterways might well have been avoided. The over-extension of farming into some land areas has resulted in unnecessary human hardship. Multiple failures were noted where quick spring run off lead to soil erosion, summer drought and lack of water for fire fighting. Earlier problems often reflected lack of modern knowledge but later failures in the light of advanced technology sometimes result from indifference, inadequate or complicated administrative arrangements.

In moving to discuss the basic requirements of a longer term approach, it was suggested this might be stated in one apt word - MONEY. However, it was agreed that the principal steps in planning were:

- (a) a continual inventory of renewable resources.
- (b) economic studies of probable markets.
- (c) establishments of priorities among the various sectors and the setting of objectives.
- (d) public information and acceptance.
- (e) approval and implementation of the plan.
- (f) review of performance and consequent revision.

The provinces should be careful to appraise their own planning efforts and programs before approaching the federal government for large scale financial assistance.

It was recommended by this workshop that all governments take steps to create a national advisory council for the development of renewable resources, with a permanent professional staff. This council, as one of its first duties, should study the need for a National Development Fund to eliminate the present piecemeal approach to federal participation in resource development.

INFORMATION EDUCATION

Workshop "A"

This workshop had to define the content of information-education programs that would be adequate in solving problems under discussion.

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The lead-off speaker said the conservation of natural resources required the collaboration of the people for adequate management. This calls for the effective contribution by groups which are already in close association with the people. In order to have a complete view of conservation, science and management must be integrated when presented to the laymen.

One of the discussants suggested the need for co-operation between planning units and operating units. Each province, he said, should receive grants from the federal government, to be spent according to the need of the province.

According to another speaker, we cannot deal with resources and their management without regard for people of all classes. He expressed the opinion that conservation should be taught as a special subject in universities and colleges.

The last speaker said the people as a whole are not interested in conservation. All possible means should be used to inform him, awake his attention and develop convictions which will make each citizen more conscious of management problems.

The workshop studied seven propositions or "assumptions" presented by the discussion leaders. These were modified to suit general opinion of the meeting and are reported fully in Workshop "B" presentation.

In information and education group "A", in the afternoon, agreement was reached on several guidelines:

1. I & E efforts are directed largely at uninformed or partially-informed publics.
2. Since these usually uninformed publics are the objective of I & E efforts, several problems were discussed:
 - (a) How to arouse interest? There is a need to determine effectiveness of various I & E approaches in order to gain more efficiency;
 - (b) How can technical information best be conveyed to those sections of the public already active in the field of conservation of natural resources? How can more people be trained to do this sort of work? What are the avenues of approach to more effective dissemination of conservation materials and concepts? Many examples covering mass media and more specific educational media were brought out by the session;
 - (c) How best can the large formal school groups be reached in dealing with the complex subject matter of resource use and management? Some materials require rewriting or popularizing. There appears to be a need for strengthening liaison between I & E groups and formal education groups. Both groups need to know what is being done;
 - (d) What are some workable methods of determining needs of publics for information and education? How can information be channeled effectively among all agencies and organizations at all levels?

Inventories of I & E facilities, aids, publications, films, etc., and persons should be made on provincial and national levels. Such efforts should be standardized nationally to be most effective.

Conservation councils were examined. Through conservation councils -- especially on the provincial level -- it was felt that people could take decisive action and could establish more useful lines of communication at various agency and organizational levels. I & E programs could be formulated and tested through such councils.

JURISDICTION WORKSHOP

In all seven resource sectors, the jurisdiction is to some extent divided as between the federal and the provincial governments. The basic principle is that the provinces own and manage the public lands and have exclusive jurisdiction in matters of property and civil rights and in matters concerning municipal institutions. On the other hand, numerous powers of the federal government have an important impact on resource development. The federal government has jurisdiction for example concerning Indian lands; navigation; fisheries; the regulations of trade and commerce; treaties; interprovincial works and undertakings; research; and aeronautics. There is concurrent jurisdiction on subjects such as agriculture and irrigation. In addition the federal government may effect development through the taxation power, the spending power, the power to declare a work to be for the general advantage of Canada, and its general responsibility for peace, order and good government. The Northwest Territories are under the jurisdiction of the federal government and the territorial councils. In application, the general powers of the federal government may prove wider than is generally assumed.

Seacoast and inland fisheries are federal responsibilities, but the provinces have jurisdiction on proprietary matters, and the fish when caught become matters of provincial concern except when interprovincial or international trade is involved.

A federal system demands a high degree of co-operation between governments. When all governments concerned are in agreement on a course of action, legal difficulties have rarely been a cause of major delays. The various background papers support this general conclusion.

Various interprovincial bodies, such as the Prairie Provinces Water Board, have successfully performed in matters of concern to several provinces. Such arrangements however are "gentlemen's agreements" from which any participant may withdraw at its own option.

The legal impossibility of establishing a National Products Marketing Board, the absence of unified jurisdiction respecting interprovincial rivers, and the fact that no court is competent to hear interprovincial disputes in resource matters, are cases in which an optimum pace of development may have been exhibited.

Development projects commonly involve several jurisdictions and several resources. A dam for example has implications in terms of power, navigation, fisheries, agriculture, wildlife and recreation; and may have interprovincial or intersectional aspects. Such projects should therefore be planned jointly from the beginning, to achieve the optimum development.

Governments are not so large, and so pervasive in their activities, that special measures should be taken to help the general public to find its way when seeking solution to particular problems.

Jurisdictional problems are likely to become more critical as development proceeds and scarcities arise. For example there is still development proceeds, and therefore this workshop recommends that a federal-provincial committee or some other estuary be established to give continuing attention to the study of problems of jurisdiction in the field of natural resources.

INFORMATION EDUCATION "B"

The following assumptions regarding information and education were accepted in principle:

1. The I and E function is indispensable to the proper management of renewable resources only by integrating this function with policy-making can the citizens and responsible organizations participate in the effective management of resources.
2. The I and E function must be understood by administrators in general and this should preferably be carried out by individuals with suitable training.
3. Effective resource management requires a change in the attitudes and behaviour with regard to renewable resources on the part of the people of Canada. Existing agencies of information and education must be strengthened and used to better advantage, other agencies and methods must be created.
4. An agency or agencies must be created to provide a clearing house and coordination function with respect to the multiple-use of renewable resources. This includes the provision of workshops and meetings for leaders in formal education, the mass media, in industry.
5. The modern concept of resource management requires some changes in the present organization of I and E facilities in Canada. It requires that (a) new organizational structures be developed with attention to experience in already well developed forms of extension, (b) facilities be provided for the study of the processes of information and education (c) that an examination of standards, criteria and training procedures for I and E personnel associated with resource agencies be undertaken with a view to the continuous development of competent personnel.
6. Any concept of a national resources council must include the study, and support of the I and E function as an integral part of its composition.



"HEY CHERIE! QU'EST-CE
QUE C'EST "RESCOURCES
RECREATION WORKSHOP"

Information-Education Workshop "B"

The task of information and education in resource development is to create a sense of "trusteeship" on the part of the public. Realistic programs recognize many such publics. Each needs special approaches. Industrial management is a special public. Often Management is unable to act because proper laws do not exist or public support is underdeveloped, (i.e. water pollution control). Voluntary organizations are often ready to act but cannot get adequate information. Another part of the public can be reached through the written word; other parts are not touched in this way. At times resource facts are unpleasant; government agencies may not be able to do this job. At other times what the public "wants" to know is in conflict with what it "needs" to know. Information-education is thus a complicated job. An essential idea is that it is a two-way street. The various publics must be informed. In turn those who inform the public must be constantly aware of current opinion and values.

It was suggested that some of the purposes of information-education are:

1. To supply the information the public wants
2. To help the public become knowledgeable about the whole resource field for the support of legislation
3. To guide the public in its use of resources.

Discussion is concentrated on three aspects of resource education:

1. improving the co-operation between government agencies and voluntary organizations;
2. making effective use of the mass media of communication;
3. ensuring competence of professional resource educators.

There was general agreement that voluntary organizations had a fundamental contribution. To make the most of this, special consideration should be given to co-operation between such organizations and government agencies. The Conservation Council of Ontario was offered as one example of how this could be achieved. The Council is made up of seventeen resource organizations. Government representation is advisory. Its purpose is to study resource problems and to provide advice and guidance in the broad sense. It was recommended that special study be given to the need for provincial councils which would do at the provincial level that which any proposed resource development council might do at the national level. In general such provincial councils might encourage research, facilitate co-ordinated approaches and disseminate information. A Council would not be concerned with the special aspects of resource use but would emphasize multiple resource-use problems. An alternative proposal was a council concerned only with education-information composed of representatives of resource interests and closely related to policy making.

A general problem of voluntary associations is finding funds to carry on programs. They are willing to contribute extensively but need assistance with finance and information. They can do a useful job without being accused of issuing propaganda. Often government agencies are unable to do this.

Three kinds of public audiences for information and education must be reached:

1. The "captive" audience of children who can be helped to understand the meaning of resources through the teaching of the schools and related youth programs (camping, Boy Scouts, etc). This group in turn influences the parents in many subtle but useful ways.
2. The "interested" public of adults who can be reached through the reading of pamphlets and through the press, radio and television. Here the problem is to build on an interest which already exists.
3. The larger and "uninterested" public presents the serious problem. It remains untouched by most existing information-education programs. Here very difficult and new approaches will be necessary. Information must be provided in the simplest of forms suitable for an average grade eight education.

Information-education agencies will need to create better opportunities to use the mass media. Many special journals (outdoor, sports, etc.) are searching for improved material. Often there is a lack of concern about getting timely information to the press. As a wider public interest is aroused the mass media move into the field and sources of further information quickly expand. It was acknowledged that much misunderstanding exists about the problems of the mass media on the part of information-education personnel and vice versa.

It was pointed out that mass media approaches should be combined with the more personal approaches of meetings, speaker panels and so on. There is no problem in getting public involvement when such meetings are "problem-centered" (when a beach is closed through pollution it is not difficult to get the people out to discuss the problem).

As the task of resource information-education increases in the future greater attention will be needed to professional competence. Two kinds of professional persons are needed. One is the resource specialist (agricultural representative, forester, etc). This person wants some special courses to help him with his education-information job. Probably more attention has to be given to the training of professional resource educators whose full-time job is to help improve educational approaches to adults. This training seems best offered by the universities at the post-graduate level. The same curriculum can probably be useful to resource educators in various fields since they all work with people. Examples of common needs for knowledge and skill includes communication, psychology of adult learning, human relations, social organization.

Another area for further study is the university extension program. Universities have an advantage in that they are regarded as neutral and objective. Much is now being done by universities to stimulate public attention and action on resource problems. Much more might be done if resources and financial support became available.

The above comments are presented as points coming into the Workshop discussion rather than matters on which agreement was reached.

RESEARCH - WORKSHOP A

To determine the more important deficiencies in the scope of present research programs in meeting problems under discussion

In his lead-off paper Dr. Menzies outlined the more important areas of research deficiencies as seen in the light of the objective of achieving optimum resource development. He noted that in three areas - agriculture, forestry and fisheries - market expansion is a key factor on which resource development depends and therefore research is required not only at the industry level but should be addressed to matters of broad economic policy as well. Research needs to be devoted also to problems of resource development and to problems of adjustment in resource use. With respect to other areas - recreation, water and wildlife - it is the supply side to which research ought to be directed primarily. While research in the natural sciences needs to be increased, much greater attention than hitherto must be given to studying the social and economic problems associated with resource development. This should be in the context of a co-ordinated attack, for market expansion and resource development and adjustment are inter-related aspects of the same general problem. Finally, it should be noted that research resources themselves are in short supply and there is a need for research into the causes and corrections of the under-developed state of our research potential.



I DON'T KNOW -

SOME GUY FROM

B.C. ASKED ME TO

HOLD IT

Dr. H.W.R. Chancey supported the views expressed by the speaker, but warned that agricultural production in many areas of the world is increasing at a furious pace. He suggested that we may have to find new users for agricultural products if we expect to find markets for them.

Dean Garigue in general was in agreement with Dr. Menzies but emphasized the tremendous importance of research in social and economic factors in the context of their cultural patterns.

For the remainder of the morning, the workshop broke up into sub-groups as follows: Agriculture, Forestry, Fisheries, Water Resources and Geology, Recreation and Wildlife and Urban Growth. They reported after lunch and then the entire workshop had a general discussion, agreeing on the following recommendations.

1. There is a need for increased research funds for both applied and basic research in all phases of resource development at national and regional levels. In making such funds available, it is essential that the specific needs of the socio-economic and natural science be considered separately.
2. The proper use of research funds depends on increased numbers of trained research workers. University staffs need to be strengthened and graduate training stimulated.
3. Funds for both of the above should come from Governmental Departments and through organizations comparable to the National Research Council. They may be applied as grants to or contracts with universities and university personnel.
4. Industry should be encouraged to expand its research programs and integrate them with governmental and university programs where practical. The placing of government contracts with industry and private organizations, for research in resource development should be encouraged.
5. Integration is needed between the research activities of the socio-economic and natural scientists.
6. The co-ordination of statistical data having to do with resource development should be strengthened.
7. Accelerated land use, soil and land capability mapping should be undertaken on a national scale to provide needed information on renewable resources. In addition, broad reconnaissance soil and land use mapping should be undertaken in those areas which have received prior survey.
8. The atmosphere must be considered as a resource from the viewpoint of meteorological research.

The following are summaries of the recommendations made by the sub-groups of the workshop:

Fisheries

The recommendations fall into two groups.

1. Economic, technological and sociological research on the following:
 - (a) Factors affecting the demand for fish product;
 - (b) Recreational fishing and its economic values;
 - (c) The efficiency of fishing and marketing facilities;
 - (d) Improvement of the quality of fishery products and the development of new products.
2. Biological research on the following:
 - (a) Factors affecting sustained yields;
 - (b) Reaction of fish to fishing gear;
 - (c) Effects of change in environment;
 - (d) Define water quality standards for various species;
 - (e) Propagation and reproduction;
 - (f) Culture of sedentary species;
 - (g) Inventories of usable fish.

Forestry

- (a) A vast system of university grants and post-graduates scholarships in fundamental and applied research in the field of wood sciences. Means of co-ordinating research by the different agencies should be studied.
- (b) A Forest Industry Economic Advisory Committee should be established to explore the possibility in assisting industry in competing in world market.
- (c) An expansion and co-ordination of technological and economic research in forest harvesting should be done.
- (d) Means to accelerate the finding of specialist outside Canada when required should be found.
- (e) Efforts should be made to increase the use by industry of research results.

Agriculture

Requirements to Correct Deficiencies in Resources Inventory

- (a) Soils, present land use and simplified land use capability surveys and maps;
- (b) Collection and analysis of farm management data and information;
- (c) Organization of census information so that data needed for research can be readily extracted.

- (d) Aerial photography on a uniform scale;
- (e) Accelerated provision of base maps;
- (f) Provision of additional and more appropriate meteorological and climatological data.

Specific Inadequacies in Current Research

1. In Agricultural Economics, with respect to
 - (a) demand problems, dealing with outlook and potentialities, for agricultural products;
 - (b) marketing;
 - (c) economic factors affecting the utilization of our supply of land (and water);
 - (d) problems of agricultural adjustment aiming at economically sound farm businesses;
 - (e) the adequacy of farm credit sources and financial arrangements.
2. In Agricultural Engineering, with respect to development of new equipment.
3. In Plant and Animal Science, with respect to nutrition and management.
4. In Extension, with respect to excessive delay in application of research findings.
5. Over-specialization in research has led to an excessively narrow interest, and hence lack of co-ordination.

Water Resources and Geology

Proposals

1. Machinery should be established to ensure the necessary co-ordination on data collection, analysis and research.
2. Encouragement should be given to publication of annotated bibliographies on water resources development.
3. Specific fields for additional research in hydrology:
 - (a) Groundwater;
 - (b) Weather modifications and evaporation suppression;
 - (c) Regional water balance;
 - (d) Physical-chemical limnology;
 - (e) Ice and snow research.

Urban Growth

Proposals

1. The co-ordination and acceleration of present federal, provincial, municipal and private surveys and research activities.
2. Greater use of existing government research agencies and facilities.
3. The establishment of an appropriate national agency to provide research funds to universities.
4. The formulation of an educational program to inform the public.

Wildlife and Recreation

A. Recreation and wildlife are the least known of the renewable resources. There is an urgent need to investigate the operation of supply and demand factors and their socio-economic applications.

B. The physical dimensions of wildlife and other resources which support recreation have received more attention than the socio-economic dimensions, but many gaps exist in our knowledge.

A general consideration regarding these needs is that research on wildlife is most meaningful when integrated with research directed toward resources or land uses.

C. To meet the needs outlined under A and B above will require a great improvement in the supply of personnel and facilities for research. Increased support for graduate training facilities in universities is urgently needed.

There is a great need for communicating the results of research both within the professional fields and to the public.

MANAGEMENT - WORKSHOP A

Directing management to more effective multiple use of renewable resources on a continuing basis

In his opening remarks the Chairman, D. M. Omand, advised the group that the meeting would be conducted from the eight-step agenda proposed by the Resources for Tomorrow Secretariat for this specific workshop.

STEP I

He provided a brief background of the concept of and the need for a multiple use approach to renewable resources management. He defined management as: "the manipulation of the resource base for production of the resource, regulation of use to permit a sustained yield. A positive factor - production a negative factor - regulation of use."

STEP II

The lead-off speaker, Mr. V. A. Wood, presented a comprehensive review of the background papers. He restated the overall theme that this Conference will explore possibilities for better management and development of our renewable resources and that multiple use of resources should support an adequate rate of growth in the Canadian economy as main focus for discussion.

The speaker discussed the following factors and their relationship to resource management:

1. Aims, goals and objectives;
2. Inventory, basic data and research; and
3. Analysis, planning, policy making and administration to implement policy.

He stressed need for an evaluation of the relative importance of different resource uses if they are to be managed efficiently on a multiple use basis. He pointed out that conflicts may arise which can not always be resolved on the basis of economic considerations alone.

In summary the speaker pointed out areas of agreement from the background papers as follows:

1. that the general goals for the management of the renewable resources are accepted by all disciplines;
2. that effective management must be on a multiple use basis;
3. that effective management acquires adequate inventory and research; and
4. that analysis, planning and policy making must be done by those representing, or with a knowledge of, the various resources and that development and use of resources should be based on the multiple use concept.

He stressed the need for a close relationship between analysis, policy making and administrative bodies and that where feasible, policy making and administrative bodies should be within the same organization.

STEP III

Mr. E. A. Poyser, discussant, reviewed the points raised by the speaker. He then outlined four points which are common to all interests in multiple land use:

1. the objectives of management are dependent on the locational nature of resources, that is:-
 - (a) objectives in areas of low population density are economic, and
 - (b) objectives in areas of high population density are cultural as well as economic.
2. the objective of management should be to maximize complementarity of multiple resource use projects;
3. the greatest problem in resource management is inability to bring about land use adjustment on marginal lands; and
4. the best decisions in resource adjustment for multiple use can be achieved by interdisciplinary resource analysis groups.

Mr. R. G. Henderson, discussant, provided a detailed summary of factors necessary for successful multiple resource use on a regional program through the co-operation of the three levels of government. As an example he used the Metropolitan Toronto and Region Conservation Authority.

He cited the following beneficial results of the program:

1. flood and water control,
2. development and management of the forest resource,
3. management of agricultural land use,
4. development and use of fish and wildlife resources,
5. creation of recreation facilities, and
6. the furthering of, the conservation education of the public.

STEP IV - BASIC ASSUMPTIONS

The Chairman presented a list of basic assumptions to the group. These assumptions, as amended by the group, were:

1. That renewable resources are: water, soil, forest, fish and wildlife;
2. That management encompasses all the factors for optimum use, development and regulation of renewable resources;
3. That the discussion of management is limited to governmental, corporate and individual levels; and
4. That for the purpose of the discussion the provinces have control of the management of renewable resources within their boundaries and the federal government has control over trade and commerce and to a degree sets the limits or boundaries within which the resources are to be administered.

STEP V

Multiple resource use was defined by the group as "the use of a resource for two or more purposes".

It was decided by the group that the following major conflicts impede the solution of multiple resource use:

1. a lack of goals for multiple use on a regional, provincial and national scale;
2. a lack of, or misuse of, basic inventory, data and research;
3. a lack of communication between different disciplinary and governmental levels; and
4. the institutional framework for giving effect to policy and planning.

STEP VI

The following examples were cited of where, in the Canadian experience, we have found ways of taking advantage of possibilities for joint use of renewable resources:

1. The Strathcona Hydro-electric Project of British Columbia;
2. The Eastern Rockies Forest Conservation Board;
3. The Whiteshell Provincial Park and the Nelson River Project of Manitoba;
4. The Okanagan flood control scheme; and
5. The Metro Toronto and Region Conservation Authority.

There was an expression from the floor that the group should stress the responsibility of "stewardship" and to have as a common goal the attaining of maximum benefits from all renewable resources for all interests, within the realm of economic feasibility.

STEP VII

The group discussed types of action required to find reasonable solutions to conflicts in resource use and to promote a more effective and co-ordinated approach taking the fullest advantage of possibilities for joint and multiple use.

STEP VIII - CONCLUSIONS

The conclusions are:

1. It was generally agreed that in order to obtain efficient use of the renewable resources they should be managed on a multiple purpose basis.
2. In order to achieve the goals, aims and objectives, it was agreed there are advantages to the regional or area approach to renewable resource management.
3. In order to manage properly our renewable resources; basic data, inventory and research are needed.
4. It was agreed that in order to meet the goals and objectives of resource management, it is necessary to have more efficient communication between and within disciplines, various levels of government, industry and the public.

MANAGEMENT B

The basic questions with which Workshop Management B was concerned were:

1. In what respects can resource problems be resolved by private enterprise alone?
2. What can governments do in co-operation with private enterprise to bring private decision-making in line with the objectives of public policy?
3. What types of working agreements between governments and private enterprise are required to assure proper co-ordination of public and private decisions?
4. To what extent is government ownership of resource necessary for their efficient utilization?

The lead-off speaker, Mr. Mitchell Sharpe, prefaced his remarks by noting that there is now much less emphasis on the key role of resource development in Canadian economic growth than in former years. In addition it was suggested that government policies relating to economic development should be concerned more with positive programs than with "negative" regulatory measures. In most cases private enterprise recognizes clearly and accepts the role of governments in resource development. This accentuates the need for governments to clarify their policies and to make their actions consistent. He noted particularly the need for regional planning where the problem of reconciling public and private interests is most complex. Nevertheless he indicated some concern about the tendency to call for more government intervention in response to resource problems and indicated that more emphasis might be placed on invasion of government policies and regulations rather than solely on their extension.

Mr. John Dawson, the first discussant, expressed general agreement with the views of the lead-off speaker but expressed concern that the interests of the consumer should be safeguarded. Simplification of regulations would be desirable, but not at the expense of insulating private industry from competition. Mr. Dawson also stressed the severity of problems in urban land use where private decisions often inflict costs on others which cannot be assessed against the appropriate resource user. He cited water pollution and air pollution as examples of where society bears the burden of essentially private costs. He noted that in the fisheries present government regulations lead to extremely inefficient exploitation of the resource. He was of the opinion that the problem of co-ordinating private and public decisions in agriculture was less difficult.

The second discussant, Mr. A. M. Moore, emphasized the desirability of using the price system more effectively to achieve co-ordination of private and public objectives. The urgent need is for clarification of public policy toward resource use. Only in the field of hydro-electric power has an explicit principle been enunciated. The use of cost-benefit analysis in multi-purpose river development projects provides a consistent means of evaluating competing projects. He then suggested that this approach could be applied equally well to the appraisal of most other resource projects. For example, a rational approach to the pollution problem requires consideration not only of the benefits of pure water but also the cost of attaining it. He pointed out that the concept of sustained physical yield in forest management seldom produces the maximum economic yield from a given forested area.

DISCUSSION

In one of the first comments it was pointed out that a "clear cut government policy" should not rule out flexibility to meet changing circumstances. Sound resource policies require regular review and amendment.

One member of the group asked how cost-benefit analysis could be employed to evaluate alternative uses of a resource where one of the services is not evaluated in the market. He cited as an example the conflict between wildlife and logging in Algonquin Park. It was pointed out that cost-benefit analysis promotes a method by which the proper rates of recreational and commercial usage could be approximated.

The discussion then turned to the question: To what extent can resource problems be resolved by governments?

In general this depends upon the nature of the resource in question. For example efficient production from small private woodlots appears to require research, grading and marketing assistance from government; however, there is a great deal of room for private initiative once these basis services are available. However, unregulated private enterprise in the fisheries might lead to the complete destruction of the basic resource. Much has been accomplished in the connection of water in various watersheds through

co-operation of private individuals and similarly private organizations can facilitate urban development planning on their own initiative. The fundamental problems of agriculture cannot be dealt with by individual action and will require extensive government participation.

It seems apparent, however, that at some stage, the efficient exploitation of every resource calls for some level of government to involve itself in some manner. The government may be a prime sponsor of plans, a partner with private owners or exploiters of resources, or merely a regulator and enforcer of plans primarily designed by the industries or groups concerned. Governments may also be called upon to resolve mutually inconsistent private plans for resource use in the interests of the common good.

The Workshop then directed its attention to the second question: What can be done by governments to resolve resource problems in co-operation with private enterprise?

A question was raised regarding the extensive government regulations of the forest products industry in Canada. It was pointed out that many segments of the industry are made up of small units which cannot finance necessary research and development programs. In addition, the government is the largest single owner of forest land in Canada and must share responsibility for fire protection, access roads, and harvesting standards with its lessees. Long range planning by private enterprise also requires clearly enunciated and stable government policies.

It was also suggested that the federal, provincial and municipal governments review the taxation on forest industries to remove anomalies which now exist. Inefficient cutting and use of wood is now often encouraged by current tax laws, and there are also certain inequalities of tax burdens between the provinces which it would seem advisable to ameliorate.

In dealing with agriculture, the Workshop agreed that an orderly solution of basic agricultural problems could not be found in the absence of vigorous growth in the industrial sector of the economy. A rapidly expanding economy would permit the absorption of the excessive labour supply in agriculture which is the major economic and social problem in Canadian agriculture today. The Workshop considered two ways of attacking the immediate problem: reduction of output through the diversion of resources from agricultural use, or adoption of credit and land use policies intended to raise the per capita income of the agricultural sector. For a more detailed examination of the policy recommendations, see the Reports of Workshops Agriculture A and B.

In some respects, fisheries suffer from the same problems as agriculture. Excessive amounts of labour in the Atlantic fisheries have realised incomes to the point where modern, efficient gear cannot be financed. As in agriculture, alternative employment opportunities are extremely limited. In the lobster fishery and the major Pacific fisheries limited supplies and steadily increasing prices have attracted expressive numbers of men and vessels. It is felt that government conservation policy must be aimed at improving the efficiency of the industry. This may require restricted entry in fisheries where supplies cannot be expanded. There was general agreement that specialized technical and scientific training should be provided for fisheries personnel.

The group felt that wildlife and sport fishing require special consideration because of the difficulty of measuring the money value of these activities. Only governments can develop these resources effectively. This is another area where there is a shortage of trained personnel.

The group felt that government contributions to urban planning and development could be most effective through the provision of leadership and technical staff to local planning groups. Governments would also be required to resolve conflicts among competing groups and to ensure an orderly regional development.

The group suggested that active government participation would be required for optional utilization of Canada's scarce and valuable water resources. Particular reference was made to the need for research into pollution control and education for conservation of water. More detailed discussion of this problem can be found in Workshops Water A and C.

The third question which the Workshop considered was: Does the co-ordination of public and private decisions call for new working agreements between government and private enterprise?

There are already many agreements in existence in the forestry and water sectors which establish a pattern for future agreements in those areas. These agreements are normally contained in the leasing arrangements from the Crown. There is a wide diversity in these arrangements between provinces and between companies. A licensing system for fisheries was recommended which would parallel closely the arrangement in the forestry industry. Under this arrangement the government would assume a stewardship of the basic resource.

A STATEMENT : "RESOURCES FOR TOMORROW" - DR. B.H. KRISTJANSON

I am pleased to have this opportunity of addressing you briefly this evening not only because I am grateful for the tremendous support you have given to the Conference but more particularly because I feel that further clarification of Conference objectives might be welcomed by you.

I am speaking to you as Secretary to Ministers from the eleven senior governments - probably a unique position. I have no more responsibility to one Minister than another even though I have been located in OTTAWA. This, by the way, is not the easiest type of arrangement - to have 11 bosses representing 11 governments.

In spite of all we could do during the past several months to make clear the objectives and methods of the Conference many people remain confused.

The reason for confusion is inherent in the Conference structure and its terms of reference.

This is a technical conference under the direction of the 11 senior governments. At the very outset all governments agreed that it would not be a negotiating conference. It would not be a decision-making conference. Therefore, it is a technical, non-negotiating conference.

Herein lies the rub. If we do not take decisions what positive results can be achieved? The answer is that before any action is taken, clarification of objectives and the range of possible means to reach those objectives is necessary. This is common sense even if it is not headline material. What the Ministers have said is - let us try to get a bead on where we are going and want to go and, at the same time if possible, consider the range of things that could be done to reach our objectives.

The other primary element leading to confusion is that great emphasis has been given to the determination of all governments to achieve tangible results. The Ministers are unanimous in their desire that real progress be made - that the Conference should not be a talkathon.

Now, it so happens that people generally associate forms of organization with results that can be expected. There is a tendency in all of us to try to visualize the kinds of formal organization that may be required to meet this or that objective. And this is all to the good. However, organizational form and forms are a low priority issue in our deliberations in the workshops here this week. It will be helpful to have suggestions but we would be defeated if we proceeded from preconceived conceptions of post-Conference activity in any form.

This is a free and open Conference where each participant is heard, not as a representative of a government or an organization but as a man or woman whose personal views are judged important. The Ministers of the Steering Committee asked me to assemble the best advice possible and, to make that advice as honest and as good as possible, they have asked their registrants to speak their minds. That should be a banner headline but it is not. But to me this is the most significant characteristic of this Conference. The aim of the Ministers is to get the freest and fullest expression of views possible. They want advice.

What advice are they seeking?

1. What goals of development are best for Canada and best suited to our particular governmental structures. What, - if anything, - do Canadians want regardless of where they reside? For example, do we need a more rapid rate of development of our renewable resources as a whole or of some more than others? Is it possible to define and agree upon a satisfactory rate of growth as a matter of principle?

2. What areas of development appear to suggest the need for active cooperation between the Provincial and Federal governments. In other words, what are the activities that make sense primarily when there is relatively active cooperation between all eleven senior governments?

3. What development projects are most likely to require the exclusive attention of a province or group of provinces?

4. For each of these 3 objectives, what is the range of devices that could be used to best achieve these goals?

Why are the Ministers seeking this advice? -

because, to an increasing extent they are becoming responsible for decisions that affect the management of our renewable resources. The legislation they bring forward is very much a part of management decisions in the private sector quite apart from their direct management of publicly owned resources. That is why they were so anxious to bring governments, industry, universities and private groups together for these discussions.

It is becoming increasingly difficult for the Ministers to decide upon what needs to be done in a country where there is substantial competition between users of resources. There are all sorts of conflicting and complementary uses of our resources and the Ministers are charged with setting the rules of the game. Thus the emphasis on multiple-use.

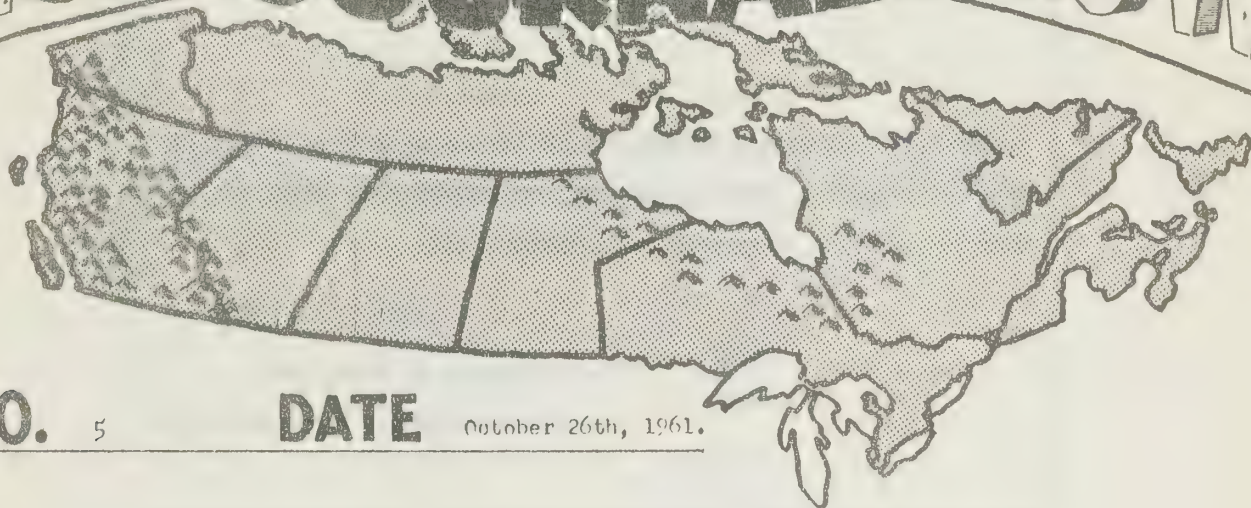
The problems that are being explored here this week are problems for which there are no easy answers. They demand an examination of conscience as to what we as Canadians really want to achieve, but they demand also an honest effort to examine possibilities for effective action. If we can agree upon this then the vital importance of reaching the public through the press and other media becomes apparent. How this is done depends upon you but I am hopeful that you will find adequate material here this week. I am hopeful too that public information requirements for resource development will be clarified within sessions of the Conference.

Within this view of our objectives, the success of this Conference was assured before the delegates arrived in Montreal. It was assured not because of physical organization and arrangements (although this is important) but because of the extensive studies that have been undertaken, the lead-off papers that have been written and the competence of the people taking part in the workshops. Now we are adding this full week of further study. In other words, the substance of the Conference has been assured and the Ministers are satisfied that they have a reasonable chance of getting what they started out to get three years ago - guidance.

So far as public information media are concerned the problem will be one of finding the time to probe deeply enough into the wide range of problems under discussion to be able to report effectively on the progress being made. We have tried our best to brief you in advance but I realize that it is difficult to find means of communicating with the public on technical matters. Notwithstanding this may I thank you for the interest you are showing and the great amount of work you have already done. I am prepared to answer any and all questions to the best of my ability.

RESOURCES FOR TOMORROW

JOURNAL



NO. 5

DATE October 26th, 1961.

THURSDAY WORKSHOPS DEVOTED TO REGIONAL PROBLEMS

On Thursday, workshops functioned under four main headings; urban-centered regions, river valley regions, broad economic regions and frontier regions. These sessions will be followed on Friday morning by a re-convening of all of Tuesday's workshops.

The participants are now well settled into their Conference tasks and any initial strangeness that may have been felt among those meeting each other for the first time has rapidly dropped away before the prevailing desire to advance, in common, a worthy cause.

There are no easy answers to the problems explored this week. But an examination of their nature and of the possibility of solutions for them is demanded by the urgent times in which we live. This dominant fact ought to be a busy spur to intensive thinking and effective action.

A WELCOME COMMENT

The following telegram was received by Secretary of the Conference
Baldar H. Kristjanson:

ALBERTA DIVISION OF THE COMMUNITY PLANNING ASSOCIATION OF CANADA IS
GREATLY INTERESTED IN THE CONFERENCE AND EXTENDS BEST WISHES FOR A
VERY INTERESTING, PROFITABLE AND SUCCESSFUL ONE.

MRS. CORNELIA R. WOOD, MLA,
CHAIRMAN OF ALBERTA DIVISION C.P.A.C.

The Delicate Matter of Interpretation

It has been suggested that in the enthusiastic discussions held in many of the workshops, it has been impossible for all rapporteurs to record completely the proceedings of the meetings. In fact some participants have expressed the feeling that reports have not, in every instance, conveyed exactly the full essence of their workshops.

Therefore, should any participant feel that such has been the case, he is invited to make his observations IN WRITING to the Secretariat, 293 Albert Street, Ottawa, at the conclusion of the conference.

WORKSHOP REVIEWS - Friday, October 27th, 1961.

Agriculture A	Gatineau
Agriculture B	St. Laurent
Fisheries A	Room 353
Fisheries B	Galerie 4
Forestry A	Bersimis
Forestry B	Peribonca
Recreation A	Richelieu
Recreation B	St. Maurice
Water A	Harricana
Water B	Chaudiere
Water C	Matapedia
Wildlife A	Galerie 3
Wildlife B	Galerie 2
Urban Growth & Resources A	Saguenay
Urban Growth & Resources B	St. Charles

URBAN-CENTRED REGIONS - WORKSHOP A

Controlling the impact of urban growth on resources

Mr. Carver, lead-off speaker, cited that amongst the problems involved were the difficulty of organizing urban people and the exploitation of the surrounding countryside by urban peoples. He suggested that the cure would require overall and bold action.

He recognized the existence of many types of urban-centered regions, but emphasized that basically a consistent pattern can be observed. He chose as a basis for discussion a four-zone concentric framework having as its central core the metropolitan area or mother city or group of cities. Surrounding this is a "shadow" or "shock" area which can be up to five times the size of the metro area and what represents the region about to be urbanized.

Mr. Carver said the "shadow" area is the chief problem area and the one in greatest need of effective controls. The people here are half rural, half urban. The area can be considered to be held in trust by the metropolitan area for future population. The solution here has to do with the metro area being the responsible authority but efforts should be directed towards reducing the size of the "shadow" area, thus checking the loss of farmland.

The agricultural area must be conserved at all costs both for its value in crop production and as suitable open space for metropolitan people.

The interests of the metro people in the resource area should be protected by controls exercised by provincial or federal agencies.

Mr. R.N. Giffen as first discussant used the Edmonton district area as an example of an attempt to exercise control over an urban-centered region. The area contains some rapidly-expanding sub-centres and one in which there was a great lack of control concerning resources, roads, power lines, etc. The planning body devised began as an advisory one but now has power to act on decisions. He suggested the scheme as a reasonably successful one.

The second discussant, Mr. Guy Legault, spoke of the confusion resulting from different disciplines using different methods to solve problems of regional planning. He proposed one solution of the problem of urban impact to be a scheme to bring about greater concentration of people in cities where they would be housed more effectively than at present. He envisaged a cubic-structured city of only three miles on the side holding as many as 20 million people. He felt the national and regional planner must seek this type of city.

The case for provincial government exercising full control in this area pointed out the small degree of urban influence and interest here against the great performance of provincial responsibility. It was agreed that the agricultural area should be preserved from urban encroachment; some even suggested complete exclusion of new settlement or extension of existing villages.

Points brought forth supporting provincial control were:

1. The area belongs to the people in general.
2. It contains resources in the form of recreation, wildlife, forests, etc.
3. Roads, water supplies, farms, schools, hydro, police protection, wood-cutting, agriculture and water pollution are largely provincial responsibilities.

There was much discussion on the validity of the concentric framework type of region proposed by Carver. However, it was agreed that this should be used as a basis for further discussion. A multi-centred region with many overlapping concentric rings might require a different approach to the problem.

There was general agreement that city-centred regions exist - at least as areas with inter-related problems arising primarily from the impact of urban centre on "shadow" zone.

The impact of the metropolitan area on the urban "shadow" area was discussed with many examples forthcoming such as water pollution, loss of agricultural land and neglect of resources. Most of the discussions which followed concerned the degree and nature of the controls which might be established to minimize the harmful effects of the urban impact. Most supported the view that control in this area should be exercised by the metropolitan centre. There was a recognition of the possibility of antagonizing the people of this area with enforced control from the urban centre. It was felt, however, that if towns refused to exercise control over this area no one else would.

Specific examples of how control over physical development in this area might be exercised include the expropriation of land, continuation of federal-provincial land assessment schemes and an appropriate tax structure. It was suggested that perfect control will be hard to achieve and that partial control may be the only type possible. There will be natural resistance to a central agency freezing land to control development in this area.

There was agreement that development of the "shadow" area be kept as concentrated as possible with avoidance of low-density areas. It was also suggested that initial overall zoning plans open up many pitfalls and a flexible policy with zoning going hand in hand with demand enables alteration to fit new situations.

Types of control

Most discussion was on the question as to whether control should be exercised solely by the metropolitan type of government or by the provincial government or by some intermediate body. There was no general agreement reached here.

Many supported the metropolitan type of government with control extending out at least to the end of the "shadow" area.

Dealing with the weaknesses in the metro system, spokesmen pointed to high degree of red tape, the difficulty with powerful or stubborn member municipalities and the fact that ultimate control is in the hands of provincial authority any way.

Impact of metropolitan area on the agricultural zone

The impact on the agricultural area was shown in the recreation activities of city people, though it was agreed that impact was weaker in this zone. Most supported either provincial government control for this area or a regional council control. In support of the latter, the answers of local problems and the vested interest, were cited as factors in favour.

URBAN - CENTRED REGIONS - WORKSHOP B

The evolution of governmental processes to meet the challenge of regional development

The arguments for regional planning and the form it should take were presented by Mr. Davies based on five assumptions agreed to by the meeting. These were:-

1. The region has its focus in one or more urban centers.
2. The boundaries of the region are approximately defined by the area within which the people of the city have regular contacts of an economic, recreational, social and political nature, with the people of the surrounding country, towns and villages.
3. Municipally, this kind of region may contain cities, suburban municipalities, towns, villages, rural municipalities, counties where they exist, and a number of ad hoc functional organizations.
4. Because of the interdependence of the parts of the region, and because of the personal element in town-country contacts, this kind of area tends to assume the character of a regional community which is in itself an important function in effective regional planning.
5. The regional community requires a defined boundary to be able to plan its development.

Mr. Davies proposals followed very closely the practise in Edmonton which he carefully pointed out had trouble but was making steady progress. In brief, he advocated a regional planning authority financed by assistance from the province with authority to impose the plan on all members subject to appeal to a Provincial Planning Board.

Mr. Blumenfeld pointed out that there were two circles; One the daily commuting area, the other the interest area perhaps 150-200 miles from the centre. The real problem was to do planning for this larger area to find reasonable limits. Two stages appeared: first, organizing the planning machinery, e.g. boundaries, membership including private interest staff, etc; second, carrying the plans into effect, e.g. executive powers, financial resources.

Mr. LaHaye asked whether the Provincial Government should not do the planning as a Provincial responsibility?

Appeal was made for those outside the planning profession to express their interest in such related fields as:

1. Adjustment of rural and all assessments.
2. Problems faced in financing suggested improvements.
3. Land needs for hunting and fishing.
4. Wilderness areas.
5. Retention of productive farmland.
6. Cultural needs of people. It was agreed that these conflicting uses must be reconciled in any plan.

The recurring theme of the workshop dealt with Provincial Government responsibility for planning. There was a measure of agreement that planning is a government function and a matter for decision at the government level.

However, regional aspects were studied centred around these four questions:-

1. What are the functions to be performed by a regional planning authority?
2. What are the various forms available in Canada permitting regional planning?

3. What are the respective strengths and weaknesses of these systems for

- a) bringing about a realization of regional problems
- b) formulating plans and programs
- c) securing implementation

A planning region was described as "an organic, multi-dimensional, governing entity, reacting to economic, social and cultural stimuli, and whose existence, nature and extend (subject to forces beyond his control) is dependent on man's activity. It maintains, continuously, the orderly arrangement, control and wisest use of all resources for a natural beneficial and aesthetic environment for man"

WORKSHOP SESSIONS - RIVER VALLEY REGIONS - A

The scope for multiple resource development within River Basin regions

Assumptions

The following assumptions were agreed upon by the Workshop:

1. The region is defined by the limits of a river drainage basin.
2. This kind of region may include any of the following:
 - (a) a drainage basin in which water is the major economic resource;
 - (b) a drainage basin in which water is not the major economic resource;
 - (c) a drainage basin with an established urban centre or centres;
 - (d) a drainage basin without an established urban centre or centres.
3. This kind of region may contain, in whole or in part, urban and rural municipalities, ad hoc functional organizations and may involve one or more provincial jurisdictions, the federal authority and co-operation across national boundaries.

Lead-Off Paper

The lead-off paper presented, among other matters, the following five proposed type-situations to illustrate differences in scope of river basins. These were considered to form an excellent classification system for possible type situations:

1. When the river basin is not a hydrologic unit. When this situation prevails, obviously the river basin has no particular significance.
2. When, in a hydrologic unit, development pressures are not sufficient to cause socially significant consequences from independent developments in the basin. In these cases, there may be little need for a completely integrated basin development.
3. When the primary objective of integrated development is to provide a group of specific water services to meet an expressed demand, but the basin is not dominated by a large urban region. Here river basin development may well dominate as the function, and the valley as the the significant region. Relationships to other areas will be largely those in marketing and distributing services and products. These relationships are basically those of the producer and the consumer.
4. When the primary objective of integrated development is to induce economic development. In these cases, other functional considerations (i.e., economic development) and other regions, such as some "broader economic region," may more appropriately dominate the development decision.

If river basin development is to be the means to obtaining economic development, it is evident that the basin development must follow the lead of some planning center other than that suitable for water development per se.

5. When the river basin is economically and socially dominated by a large urban region. Here, the river basin, as in the preceding type, may become a tool to implement decisions made in a different regional context and on the basis of other than water management considerations.

There were opposing views expressed on the general need for organization on a river valley basis for resource development. Reference was made to particular watershed authorities which were particularly successful in operation and which were formed by federal-provincial cooperation. It was conceded that a need for the river valley approach would appear to exist in specific instances where water as the central feature has to be managed and effective planning and coordinating machinery is not already available to perform this.

Where the river valley approach is contemplated the sociological and economic implications have to be taken into consideration within and beyond the immediate region. In early planning it was considered that any bodies which might be set up should be of an advisory rather than administrative nature.

Subgroup Discussions

In two subgroups, the workshop considered the following questions:

- (A) What problems related to the control and use of water can best be handled within river basin regions?

While it was agreed that a drainage basin or a number of related basins can be useful planning units for such problems as flood control, navigation, water power, recreation, stream pollution, irrigation, etc., no single answer appeared possible. The problems that might be covered by any valley agency would depend on individual circumstances.

- (B) Under what circumstances is the watershed region an effective framework within which:

- (1) to plan for the optimum of resources:

It was considered that any valley agency could contribute toward optimum development of resources but should not be charged with responsibility for the overall planning.

- (11) to act as a planning and development agency for new communities required by resource development?

There were a diversity of views expressed on this point and no general agreement could be reached.

- (111) to assume general land planning functions for urban centred areas?

It was not considered that the valley agency should assume land planning functions for urban-centred areas.

- (C) What are the essential elements of a planning program for multiple resource development?

The planning program should include the following phases:

- (1) Investigations and surveys by qualified specialists (including biologists, hydrologists, etc.) from various fields of science and engineering working in close cooperation on:

- (a) resource inventory and problem assessment.
- (b) economic development potential.
- (c) environment, potential in physical setting and community patterns.
- (d) engineering problems and alternatives.

- (2) The planning program should include the establishment of basic objectives.

- (3) Consultation is necessary with representative groups in the region, both private and public. It was pointed out that in the past some individuals such as farmers and fishermen have been ignored by the administrators in some valley development programs.

- (4) The preparation and preliminary programs should include:

- (a) Objectives.
- (b) Works and methods.
- (c) Costs.
- (d) Time table.

5. After satisfactory consultation with the private and public groups, an appropriate authority could be formed after endorsement by the governing bodies within the basin.

Recommendation

A large majority of the workshop agreed that planning and advisory committees be set up. It was therefore recommended that, when private and public bodies were interested, planning and advisory committees be set up by the appropriate governmental authority when integrated development of river valley regions is contemplated. Such committees would comprise representatives of science, technology, law, industry and the public. The functions of such a committee should include the phases of planning listed under the answer to question "C" above, on essential elements of a planning program for multiple resource development.

The planning and advisory committee would be responsible for recommending whether or not the particular river valley region would be further developed within the existing legislative framework or under a formally constituted river valley agency.

RIVER VALLEY REGIONS - WORKSHOP B

"The evolution of government processes for multiple resource development within river basin regions."

At the conclusion of its sessions this workshop arrived at several broad conclusions and guide lines for future action and discussion which may be summarized:

- 1.- The existing framework of water administration in Canada, at all levels of government, and within and between levels, does not, in general, facilitate a comprehensive approach to the multi-purpose planning and development of natural resources.
- 2.- Subject to the assumptions agreed to by the workshop early in its deliberations (which are detailed in a later section of this report) the following principles are suggested in developing organizations to achieve resource developments in river basins:
 - A. The type of organization should:
 - (i) facilitate a democratic choice of objectives or goals.
 - (ii) make it possible to focus into development decisions all of the critical costs and benefits, external as well as internal.
 - (iii) make possible the appraisal of proposed water developments in comparison with other alternative means of achieving the same objectives.
 - (iv) be capable of marshalling relevant modern technology from both the physical and social sciences.
 - B. Guidance should be taken from the fact that, generally speaking, the most effective organizations in this continent to date, even when federal or provincial in nature, have largely administered their programs from within the region concerned.
 - C. In river valleys with urban or urbanizing regions, special arrangements must be made to correlate the urban and resource planning programs.
 - D. The larger river basin regions will require some form of regional administration, with provision for federal and provincial participation, to prepare a comprehensive plan of resource development, oversee the implementation of the plan, and to periodically review and revise the plan.
- 3.- A national, interprovincial body in the resources field, perhaps a "Natural Resources Council", should be established with provision for federal and provincial finance and participation, and with a staff of its own. In the field or river valley multiple resource development this Council would review proposed study programs for the development of comprehensive plans for the larger interprovincial basins, review the results of such studies when completed, and make recommendations on the desirable administrative, financial, and other arrangements necessary to implement and oversee implementation of the plan. The Council could also review proposal for specific projects and make recommendations on the relative role of the provincial and federal governments in financing the project.

Basic assumptions guide lines for action

The Assumptions agreed upon by the group, which enabled the reaching of the above conclusions, were regarded as important material for future consideration of this problem, and in themselves form guide-lines to future action. These points are:

- 1) For the development of water and associated resources, the rational unit for management is the river basin, or some natural component thereof, although in some cases two or more basins may have to be managed together.
- 2) The optimum development of the region as a whole requires a co-ordinated approach to resource development, both within the region and between adjacent regions.
- 3) Within river basin regions there may be various combinations of resources available, and various stages of resource development, leading to different physical economic and social problems which would influence the administrative arrangements required for management. It is recognized that urban development is a distinctive form of resource development.
- 4) River basin regions may encompass many forms of a variety of overlapping jurisdiction, municipal, provincial, federal and international, which would influence the administrative arrangements required for resource management.

5. Consideration of an administrative structure for any river basin presupposes complimentary administrative structures at higher and lower levels, and adequate policies and procedures for co-operation between them.

Lead-off speaker J.W. MacNeill, concluded, as did the group, that inadequacies in the present framework of water resource management did not facilitate the comprehensive approach, and that problems were growing; delays in initiating projects because of failure to clearly define responsibilities; absence of administrative arrangement or personnel for comprehensive multi-purpose planning; conflicts between adjacent jurisdictions; ill-defined local, provincial, and national goals and lack of federal and provincial policies in many areas.

MacNeill accepted the criteria suggested by Fox and Crained in their background paper for judging effective water resource administration. The workshop in later discussion laid great stress on the first of these, the necessity for the organization to be democratically responsive to the needs of the people of the region which it serves. The group generally agreed that it would not be enough merely to establish education-information procedures as part of the organization, but that wherever possible it should have built-in representation from the local area or region.

MacNeill suggested there was need to consider the problem at three levels - - municipal- provincial, provincial, and federal-provincial. At each of these levels there would be appropriate geographic areas of jurisdiction, and appropriate fields of responsibility, and forms of structure suited to them. Municipal-provincial units would comprise small watersheds or components of major basins and would be particularly important where urban centered regions coincided with the unit. Here, the organization should be municipally-based, representative, and should have responsibility for forecasting future needs related to water-based resources and for preparing a plan for the necessary measures in the fields of domestic and industrial water supply, pollution abatement, recreation, fish and wildlife, land use and flood control, in relation to their relative importance in its area.

The group agreed, that at the municipal-provincial levels, the Ontario Conservation Authorities exemplified an effective type of structure which could be used as a model, adapted to conditions elsewhere. Manitoba has recently initiated a similar framework. Small-watershed authorities are not, however, a panacea and do not meet all the needs. Doubt was expressed that this form alone would solve problems of co-ordination between watersheds or within a larger basin. A provincial authority or river basin agency would have to lay down broad guides for this purpose. Although the impact of metropolitan urban development on watershed multiple-resource development plans was of great importance, the proposal that Conservation Authorities should for this reason undertake the broad land-planning functions of urban areas was not acceptable without much further careful study of the implications of adding such a function to the existing gamut of responsibilities that Conservation Authorities have in Ontario.

Provincial and Federal Provincial Levels

The group's experience was enriched by the recital of many examples of river-valley projects and administrations both in Canada and elsewhere. The structure of these appeared to take a bewildering variety of forms, but a common thread was the increasing tendency of all, no matter how restricted their original purpose, to become concerned with multiple resource development and to develop into multiple-resource agencies.

The workshop gained the impression from this that theoretical consideration of large river-basins in Canada would be unprofitable, since they were few in number and would in practicality have each to be treated in a special way. No general patterns could be laid down, except that very broadly, any organization should be based on the principles and guide lines of:

- democratic responsiveness as a built-in characteristic, except in unsettled regions,
- all land and water responsibilities in one package,
- broad human and economic goals as well as specific objectives laid down from the beginning, and
- decentralization to the regional level in plan and in action.

The problems of staffing river valley agencies received considerable attention. The alternatives are to provide a corps of professionals and technicians at the provincial level, or to provide them at the agency level. Ontario among others, prefers the former approach, but there was some insistence that agencies themselves required a competent staff, and that a long term approach to staff development should be undertaken. This would be assisted by a regular exchange program, whereby staff could enrich their competence through periods of work with other agencies in Canada or elsewhere. A national interprovincial council could do much to promote and facilitate such an exchange program.

Financial arrangements were seen in two lights; as key to success in provincially sponsored systems of conservation authorities, and as a problem requiring resolution at the inter-provincial and international levels. In their field, the federal government could play a positive role without impinging on the

proprietary rights and fields of responsibility of provinces. There was some suggestion that rather large sums of money could be made available through a national resources council; the group in the guide lines and conclusions set out above (2 D and 3), suggests some such note for the federal government.

In the final moments of the session, the workshop heard and note the suggestion that a permanent, continuing body is needed to review and assess the whole package of federal assistance programs for their effect on comprehensive multiple resource development. If these programs are directed and administered by individual agencies and departments concerned with single resource fields, and no overall view is taken, the result may be the distortion of efforts made in individual regions to achieve an optimum and balanced development, solely because too much (or too little) financial aid is available in any one of the fields forming part of the whole regional program.

BROAD ECONOMIC REGIONS - WORKSHOP A

"Potentialities of the regional approach to resource use and development"

Presentations

Dr. Ira M. Robinson prefaced his paper by commenting that it is obvious resources must be considered in a regional context. He referred specifically to a number of areas (e.g. the Quebec Labrador iron-ore region, the Peach River agricultural region) in which resource development has led to regional development.

In his paper, Dr. Robinson made the following principal points:

1. A hierarchy of regions must be recognized from the compact and intensely interacting urban-centred regions to the very large, broad economic regions, which frequently have a common physical basis and characteristic development patterns and problems. The hierarchy of regions provides the framework for understanding resources and solving resource problems.
2. Broad economic regions, of necessity, frequently overlap provincial boundaries and certainly the geographic bases of these regions have little relationship with political divisions. Successful resource planning and development can result only from recognition of this problem and effective co-operation between the affected governments, e.g. in rationalizing the collection of basic data.
3. Because of the political overlap, an appropriate administrative framework needs to be created for the specific purpose of comprehensive resource development. Dr. Robinson suggested a number of possible organizations from informal private committees to regional commissions such as T.V.A., though stressing the two points that the type of organization must depend on local circumstances and that regional development plans must be consistent with national development requirements.
4. There is a need for regional consciousness to be awakened.

The discussants were W. A. Jenkins and H. Van Vliet. Mr. Jenkins directed his attention to the Atlantic provinces and, in particular, to the unfavourable aspects of Atlantic regional development (e.g. average income is only 70% of the national average). He felt from experience in the Atlantic provinces that the initiative for regional development must come from the federal government.

Mr. Van Vliet stressed two basic points related to the realization of regional potentialities. If the basic unity of interest implicit in the regional concept is to be used to advantage there must be -
(a) a national resource program, (b) a national government arrangement.

Discussion

After the papers, the workshop group as a whole discussed and agreed upon the following assumptions:

- 1) A broad economic region can be defined in general, as any large area which has a community of economic interest. This Workshop, however, will focus only on those broad economic regions which involve inter-provincial and/or provincial-federal relationships.
- 2) Resource and general economic development opportunities are not uniform
 - a) between the regions or
 - b) within the regions themselves
- 3) The formulation and implementation of policies for the development of the nation's resources require that explicit recognition and attention be given to the regional aspects of such development, as well as to provincial interests and responsibilities.
- 4) Both the Provincial and Federal Governments have a responsibility to co-operate in planning for the realization of development opportunities within broad economic regions and within the framework of national development policies.

The workshop then separated into three sub-groups for discussion purposes. At a subsequent review session the following conclusions and recommendations were accepted by a majority of those present.

1. Advantages of a Regional Approach

The regional approach

- 1) facilitates the exchange of experience between regions with common problems;
- 2) enables various levels of government to adopt more concrete policies with respect to particular areas;
- 3) provides a mechanism for increased co-operation between regions and various levels of governments;
- 4) makes it possible to reduce the range of disparity between regional rates of growth and to limit imbalance between regions;
- 5) provides opportunity to solve specific problems of an uniquely regional nature;
- 6) facilitates comprehensive development and use of resources, and allows for the application of common principles to areas with common characteristics;
- 7) could provide industry with a better framework for planning its location and investment decisions;
- 8) makes it possible to aid marketing and reduce costs.

2. Research

(a) In order to undertake the required research on the problems and potentialities of broad economic regions, there is a need for data on the demographic, socio-economic and resource structure of these areas, related to the framework of decision and activity. At present, the information collected and published by federal and provincial governments is not organized on a comparable basis. It is recommended, therefore, that data collected by all agencies should be on a uniform basis within a standard framework adaptable to the concept of economic regions.

(b) In order to attain this standard framework, it is recommended, as a first step, that the Steering Committee of this Conference requests the federal government to undertake the immediate task of delineating an agreed system of basic economic regions, in consultation with the provincial governments and all interested agencies and on the basis of available research and data. As a second step, it is recommended that regional "Resources for Tomorrow" Conferences be organized on the lines of this definition.

3. Administrative Organization

(a) It is recommended that specific compacts be entered into between and among provincial governments and between federal and provincial governments to establish, finance and operate broad economic regional organizations. As an absolute minimum, these organizations should be responsible for data compilation, research and planning but, wherever possible, their functions should be extended to the development and financing of the best use of the renewable resources of these regions.

(b) It is recommended that the Steering Committee approach the federal government to take the initiative in setting up the federal-provincial machinery for formulating a national policy for the development of renewable resources through broad economic regions.

BROAD ECONOMIC REGIONS - WORKSHOP B

The experience of the regional approach

Mr. Noel Dant, the lead-off speaker, surveyed world experience with the regional approach to resource and economic development planning and followed by recognizing that there has been no significant experience in Canada of the regional planning based on broad regions and a multi-purpose approach. Mr. Dant summarized the conclusions deriving from his experience as follows:

1. One must look for emerging associational and settlement patterns, not as historical ones, as the basis for a realistic conception of planned growth and adaptation as a continuing process.
2. That modern means of communication have created a new and expanded type region characterized by territorial division of labour.
3. The regional planning basis is unworkable without integrated account being taken of the supra and and sub levels of planning involved.
4. The major aspect of regional planning is its purpose of insurance of a more spacious and secure pattern of living for the future.

Mr. Arthur Parks, the first discussant, supported the planning concept. His emphasis was on the problems of lesser developed regions. He used the Atlantic provinces as his primary illustration and advocated economically profitable federal assistance to the region and federal-provincial co-operation. In his analysis, two striking features of his thinking were his emphasis on meeting the problems of labour mobility and displacement, and his concept of the development of a well-located, resource-based "cornerstone" industry as a first step in a program of development.

Mr. R. Gushue's comments, as the second discussant, were specifically directed to the problems of resource use planning rather than economic planning in a more general sense. In his opinion, all resources being of national occurrence, all governments are necessarily involved and should be involved in a particular way. He said: "There must be some authority or agency, operating in the interests of all - the interests of the nation, working from economic and not political considerations. This must be a national as distinguished from a federal or federal-provincial body. There is a distinction".

A major aspect of the morning's discussion concerned the question of the nature and implications of motivations to planning. It was noted that the identification of motivations should be one of the meeting's chief objectives. It was recognized by the meeting that the existence of a crisis situation has historically been the major stimulant to planning action. Planning so stimulated, however, is almost always partially conceived and too late. It was, however, agreed by the meeting that this motivation should be replaced by ones which stimulate action that will result in the avoidance of such crises as far as possible. A continuing sense of urgency, it was agreed, must therefore be established in order to make possible adequate resource planning. In order to create this sense of urgency two basic requirements were identified: First, the taking of a comprehensive inventory of resources which will provide the factual basis for identification and analysis of problems. Second, a continuing program of public information and education.

In the course of the discussion leading to these conclusions, a number of points and observations were made.

One participant particularly noted the need for recognition of the problem of regional inter-city planning in densely populated regions such as the St. Lawrence Lowlands and Southern Ontario. He described the situation as being one of critical problems of resource use created by lack of recognition by cities of their place as part of a region, and by the contradictions and waste associated with the effects of un-coordinated action in single programs and single resource agencies such as highway construction, urban zoning, water pollution, and watershed authorities.

It was noted that very possibly a major stimulant to consideration of planning needs is the different growth rates that exist between broad regions of the nation.

It was noted that nationally, and regionally, there are crisis situations of varying nature and proportions, the crisis nationally being one related to unemployment and lagging growth rates.

It was noted that in the field of water resource planning there is an immediate need to program on the basis of a thirty-year forward picture, and that adequate planning of this kind is inhibited by lack of a regional approach, although real progress has been made, as with the Eastern Rocky Mountain Conservation Board. The causes of the lack of adequate planning were identified as the need for education of the public to an awareness of the need, and the lack of regional planning, now complicated by differing methods of operation among provincial agencies concerned.

There was a discussion of the possibility that in view of the heavy local use of recreational facilities by local people, and the nature of the improvements and programs required, the need for regional planning for recreation needs can easily be overstressed.

It was noted that, for planning, forward projections of public needs for use of resources are of very great value, but that in the case of some resources such projections are very difficult to make, and that in agriculture they may be made most easily because of the stability in physical food needs.

The definitions of regions as contained in the assumptions were questioned in a number of respects, and specifically as to the combining of Newfoundland and the Maritime provinces, on the one hand, and the separation of Ontario and Quebec on the other.

In the discussion on resistances there was considerable enumeration of the various aspects of this question. Major conclusions on which there seemed to be very considerable agreement were:

1. That there is a noticeably improving level of awareness of need on the part of the public.
2. The importance of adequately communicating the necessary information and concepts to the public cannot be overstressed, and in particular that the knowledgeable person too often speaks as if he assumed knowledge on the part of the public which in fact it does not have. The great need for extension, leadership, education and people well trained in this communication task was brought out.
3. There is a major area of resistance inherent in the structure of political institutions, powers and authorities where these do not correspond to the structure of authority needed for regional planning.
4. There are real resistances to planning in the private sector - individuals and business. The basis for the resistance here are simple resistance to being planned in one's interests and activities, the individualistic and private enterprise traditions of western society, and in many cases the experience of the private sector with past planning efforts.
5. A particular point was made that the interrelation of interests (e.g. retail trade in industry) must be recognized as not being self-evident to those concerned in many cases, and must not be assumed to be so.
6. Note was taken of the possibility that under regional planning conflicts might arise between the pattern of industrial (especially secondary industry) development encouraged by the regional planning authorities and the industry - encouragement programs and development goals of more local areas. Views on the extent to which this is a problem varied, some believing that local initiatives and competition need not conflict with the basic resource planning and survey and information functions of the planning agency. On the other hand it was noted that lack of planned regional direction to development can lead to misallocation of resources, and competition among localities can lead to the giving of concessions that jeopardize the adequacy of the tax base.
7. In connection with the raising of the problem that there is a resistance to planning based upon the belief by single provinces or areas that financial assistance may be obtained in greater amount if they do not subject themselves to a larger plan, there was considerable discussion of the problems of federal financial assistance in respect to the two needs for formulas for assistance that provide certainty and uniformity of application, and the need for flexibility to meet varied needs. The meeting on the whole agreed there must be some accommodation of these two objectives.

The preceding discussion further led to the need to ensure that each development problem be dealt with in its appropriate regional setting, and on the level of the appropriate size of region to the program - that otherwise real problems would arise. The need here is for flexibility with co-ordination.

It was noted that the review of resistances amounted to that and not as in any sense a reflection or assessment of the degree of success in developmental planning and co-operation that has taken place.

On the basis of the discussion of needs and resistances, the workgroup then turned to consideration of forms and functions of organization for planning. Aspects of the problem discussed were degree of authority, permanency, functions and structure of planning agencies; the questions of relation to existing agencies, and the question of the staging of planning agency development.

The workshop RECOMMENDED the setting up of a National Resources Council consisting of appointees, governmental and non-governmental, of both Federal and Provincial governments, whose functions would include:

1. The deliniation of resource regions and the setting up where considered desirable of ancillary Regional Resource Councils crossing where necessary provincial boundaries.
2. Advising the Government of Canada on national policies for development of resources.
3. Suggesting to provinces programs for resource use and development
4. Providing services such as libraries, information, research and engineering
5. Allocation of funds provided by the Government of Canada to assist provinces with approved development programs.

Regional Resource Councils established by the National Resources Council should exercise consultative and advisory functions.

The workshop is further of the view that other powers and a high degree of authority will ultimately be found necessary, and leaves the discussion of such powers and of organization, finances, etc., to the early meetings of the National Resources Council.

FRONTIER REGIONS A

Resource Development: Communities and Social Capital

The Chairman, Mr. S. Trachtenberg, opened the meeting by outlining the aims of the Workshop - to study the significance of communities and social capital in resource development in frontier regions.

He then introduced Dr. Diamond Jenness to present his paper on "Human Resources in Canada's Northlands".

Dr. Jenness, the lead-off speaker, pointed out that, up to now, Canada has not considered our Indian and Eskimo population as an asset but rather as a burden. We must face the fact that these populations lost, because of the impact of our money civilization, their ability to survive without the trading posts.

The result is that now an Eskimo needs an income in money or in kind of some \$1,500 to \$2,000 - and at the moment, 80% of the Eskimos have no jobs or have casual employment only.

Their income may be improved by exploitation of local resources, mining, fishing, handicrafts, etc. However, these fields do not promise or give hopes of sustaining more than a small part of the population on a stable and permanent basis.

Mining will probably go north very slowly; fishing and handicrafts are based on a luxury market and therefore face a shaky future.

The solution is education. We should take promising boys and girls from the frontier regions into our education and civilization pattern so that they may serve as a core to sustain and develop an educated population.

Gradually, the Eskimos will be able to fill occupations now available or which will be available as our industrial complex moves north.

Our purpose should be that 25 years from now no able bodied Eskimo should need relief except on a temporary basis.

Professor Hawthorn in discussing the lead-off paper supported the general education program outlined by Dr. Jenness. This proposal offers some immediate results which should have a multiplying effect.

We cannot anticipate from this or any program unmixed results. The task is hard but feasible.

This education program should be supplemented by continuing the education and training facilities which are located in the North and extending them to localities where needed.

There is a matter of balance, and we should not overlook the benefits that these educational facilities may bring to communities. For the new populations of the North, there is a need to generate a higher level of intellectual, aesthetic and recreational life. In turn this richer life will slow down population mobility which is now too high.

On the whole, community development is not easy. While some northern settlements have achieved encouraging results, it is unlikely that co-operation can make much contribution to the advancement of many Eskimos or northern Indians for some time.

Community development supposes that we can make opportunities which are desirable and reasonable in terms of what people want and also that we provide as much choice and as much feeling of taking part in decisions as can be given.

Present difficulties are inseparable from lack of knowledge of the existing situation. Research is essential to proper analysis. To a high degree every step in frontier development is a step into the unknown. However, continuing research programs may lessen our reliance on "guesstimates"

Discussant Ian MacLennan examined the aesthetic values that need to be considered in community and social development in frontier regions.

In the past in Canada there had been a blending of private and public interest and enterprise in the development of community structures.

There had been a sense of community and an enrichment of people's lives which had always, in the past, been the reward of those who gathered together to live in cities. Cities have always been indicators of civilization and cultural achievement.

Today we are described as colorless, timid and conformists in Canada. Cultural under-development is physically evident in our cities, towns and villages.

Vulgarity, general ugliness and disorder surround us. We have not yet learned to build cities of beauty and order. Yet, when the public is offered better housing of simple design, they buy it.

The role of Government in a democracy is to represent and to govern, and the role of any town planner, professional men or administrator, is to establish standards of public endeavour.

We have failed aesthetically up to now in Canada and likely will fail in frontier regions unless we can set more adequate standards and have them accepted by the public.

Beauty and efficiency compliment each other in this.

A spirited discussion then arose from the floor of the workshop on the above three papers as presented.

The first point was on Professor Hawthorn's suggestions that a co-operative and community program would make only a limited contribution to Eskimo settlements. It was reported that some fourteen co-operatives had been organized in these northern areas, and that one of these had sales last year of \$100,000. Yet the experience with these was too short to assess their potential fully.

Criticisms of the lead-off paper turned on its pessimism for the future of the Eskimos; its lack of emphasis on the need for participation of indigenous people in community decisions; underestimation of the employment that government administration and resources development would provide in the North; and overemphasis on the importance of defence and sovereignty as factors that would provide employment.

At this point it was suggested by Co-chairman Drummond that the discussion in the workshop should be extended to cover frontier regions in other than the Northwest Territories.

Speakers then raised the problems of community development in indigenous Indian settlements, in industrial communities like Kitimat, etc.

Several speakers insisted it was important to avoid paternalism (it was called colonialism by one) and to encourage local participation in decision-making.

The workshop then turned from discussion of the papers to the examination of the broad assumptions that would provide a background for analysis of the problems of frontier social development. These preliminary assumptions were:

1. That the initial development of frontier regions will normally have to be based on a limited variety of resources and that the members of the indigenous population who continue to depend on the traditional economic activities such as fishing, hunting and trapping will have low incomes.

2. That, until the social environment develops and begins to exercise its own power of attraction, it will be necessary to pay the working members of the new population considerably higher wages than those paid for similar work in other regions, and that these high wages will result in the new population having relatively high money incomes; and it is recognized that abnormal disparity of incomes between the new and indigenous populations creates social problems.

3. That the capital cost of providing the transportation and community facilities will be relatively high compared with that in other regions.

4. That isolation and/or special climatic conditions will pose social and psychological adaptation problems for the new population.

5. That new and rapid economic development may pose difficult problems of adjustment for the indigenous populations.

6. That the development of renewable resources in frontier regions will require:

- (a) primary consideration of social goals;
- (b) an assessment of the potential for development;
- (c) an assessment of the impediments to desirable development; and
- (d) an evaluation of the methods required to overcome these impediments.

7. That the distinctive problems of frontier regions require special and courageous policies on the part of governments and industry, supported by the public at large, together with sound administrative arrangements, to meet development goals of which the nation as a whole could be proud, so that our frontier regions may match and even surpass frontier developments in other countries, keeping at all times the interests of the native peoples in mind.

On the basis of these assumptions, the members of the Frontier A workshop found no difficulty in setting out the major problems of community and social development. The seven major problems concluded to be:

1. The adequacy of the resource base. It was agreed that the resource base varies from community to community in frontier regions and that this resource base should be adequately appraised as a primary step in considering the possible contribution of communities and social capital in such regions.

2. Optimum participation by all the residents in community life.

3. Adequacy of levels of living.

4. How to achieve progress without paternalism.

5. The need for education, training and intercultural communication.

6. Need for adequate continuing research and suitable pilot projects.

7. Need for planned well designed and aesthetic communities.

While it was not possible to deal fully with these problems the workshop members were able to conclude with a final summary of their position, as follows:

As a result of our discussion, we have identified some problems about which there is and should be public and administrative concern. It has been an achievement to identify the problems even though the descriptions are probably not the ones we would give if we had more time and sometimes more knowledge. There appears to be agreement that our rough spotting of problems is correct but the discussion shows differences of opinion on description as well as on solutions. To offer any prescription on the basis of rather brief discussions and rather wide differences would be presumptuous. On the other hand, we have established clearly and unanimously the need for continuing, and expanding, the program of research concerned with these frontier problems.

It is the sense of this meeting that an orderly and beautiful man-made environment, complementing a beautiful country such as ours, contributes to the general welfare of men and, as such, constitutes a highly desirable objective which should be kept to the forefront in all discussions of frontier development. It is recognized that any physical development depends for its support and stability on an economic base and that all solutions may not necessarily be appropriate to each problem in the frontier. This does not mean that modest resources ever justify ugliness. There is too much evidence of other countries with less resources than ours creating highly imaginative and modest communities, serving the needs of peoples in other lands in a most satisfactory manner. It would be defeatist to accept the idea that Canadians do not possess the necessary talents, will and human resources to match the resources of Danes, Finns, Norwegians and Swedes, not to mention Russians.

FRONTIER REGIONS - WORKSHOP "B"

Requirements for the development of renewable resources in the frontier regions of Canada

Assumptions:

To provide a framework for the discussion, the following assumptions were presented:

1. The development of Frontier Regions ★ tends to depend on the development of a few resources and to be characterized by low incomes for those who continue with the traditional economic activities such as fishing, hunting and trapping; Forestry
2. The relative cost of investment in transportation and community facilities is high compared to other regions;
3. Isolation and special climatic conditions pose both social and psychological adaptation problems for the new population;
4. New and rapid economic development poses difficult problems of adjustment for the indigenous populations. (While it is desirable to have resource development projects operate to the benefit of indigenous populations, for Workshop "B" it is assumed that programmes to integrate such populations will be implemented within the framework of economic resource development projects.)
5. Development of renewable resources in frontier regions requires:
 - a) inventory of resources;
 - b) assessment of their potential for development;
 - c) assessment of the impediments to development; and
 - d) evaluation of methods to overcome the impediments.
6. The distinctive problems of Frontier Regions require special Government policies and administrative arrangements to meet them.
- ★ For purposes of discussion in this Workshop, frontier regions are broadly defined as sparsely settled underdeveloped areas of Canada.

Lead-off Speaker

The lead-off speaker, Mr. Peter Stern, presented a case study based on his firm's experience in studying the feasibility of a pulp mill in Northern Manitoba to demonstrate the principles and problems involved in the development of renewable resources in a frontier region. First of all, it was pointed out that northern resources may only become economic if suitable means of development are found. The major special problems involved are: Distance from markets, transportation limitations, difficulties of the environment. The government must determine the basic feasibility of the project and then design a program of incentives.

As incentives, the government should consider the level of costs over which it has some control, for example, stumpage rates, power costs. It should also consider townsite planning, and secondary diversification. The northern frontier areas offer special development problems which require special solutions to transform the resources into economic resources capable of attracting private capital. For the government, the benefits to be reaped from an early development of what is now a wasted asset offer adequate justification for the negotiation of a realistic incentive program.

Discussants

The first discussant, Mr. G.F. Pushie, pointed out the need to determine what assets are contained in the frontier areas, and raised the question as to who should pay for the necessary surveys - the federal government, a provincial government, and/or private interest. Other questions demanding attention are the relative economic desirability of expanding existing pulp mills, rather than developing new ones, the responsibility for protecting renewable resources awaiting development, and the wisdom of such incentives, as guaranteed returns to attract capital to frontier regions. The main function of development programming should be to coordinate the federal, provincial, and private efforts to achieve the objective.

Mr. K. Acheson suggested that there is a joint federal and provincial interest in frontier development, such as pulp mills, since both will realize significant benefits. Corporate tax reduction over a stated period by the federal government might accompany provincial measures such as incentive stumpage rates. The construction of access roads for the mill instead of lower stumpage is an alternative which the provinces should consider.

In those provinces where it is more desirable from the provincial point of view to consolidate already accessible regions, the Federal government might still take action in the national interest, to offer incentive to development. While there may be only a single industry as the major development, diversification should be carried out as far as possible.

Basic Principles for Discussion

As topics for discussion by the various sub-groups, the following points were submitted by the Chairman.

- 1) Everybody agrees that Frontier Regions need to be developed.
- 2) The resources are
 - a) forestry,
 - b) minerals,
 - c) fish and wildlife,
 - d) recreation,
 - e) water,
 - f) soils,
- 3) What are the problems of developing Frontier Regions?
 - a) climatic conditions
 - b) psychological adaptation
 - c) transportation - water
- railroad
- highways
- air
 - d) adaptation of technology to northern development
 - e) overhead cost
- 4) What are the techniques to overcome the problems?
 - a) Transportation
 - b) Modern social amenities
 - c) Research
 - d) Governmental incentives.
- 5) Diversification of its Economic Base.
- 6) Federal-Provincial responsibility.



AND, TO QUOTE

PREMIER SHAW "HUMAN

RESOURCES ARE BEST"

IN OTHER WORDS - OUR

DIAPER DESTINY

Sub-Group I

As to the first point concerning the desirability of developing the frontier region, it was generally agreed that this is true if this is done in an orderly manner on a sound economic basis. There was considerable discussion about the addition of "Social" considerations as a bonus in order to give recognition to recreational purposes. To have development, frontier regions must first be delineated and the necessary basic information compiled about them. After this has been carried out, consideration can be given to development, but this should be done in the light of world market conditions, existing production facilities cost/benefit analysis. Words of caution were expressed that short-sighted exploitation should not be permitted and also that since the introduction of people into frontier regions will result in insect and fire hazards, these areas should be reserved for the benefit of future generations until they are required. The observation was made that having moved through a stage of exploitation, followed by conservation, we are now in a period of national resource development based on proper management. In undertaking the planning and development of a frontier region, it was agreed that consideration be given to the need for recreation fish, game and parks. The establishment of wilderness areas was suggested as a means of showing the original state of frontier regions.

In discussing the second point, the resources for development, it was suggested that consideration be given to the human resources. For each area, only one or a few may be found and the potentials will vary greatly. The need for an inventory of the resources potential of a region as the first step toward development was reiterated.

The third point, the problems of developing frontier regions, resulted in the decision that there are three basic problems: climatic, geographical and human, which lead to special applied problems in the field of technology, economics (added costs) and human adaptation. The technological and economic problems involved transportation, communication, labour, capital, perma-front and townsites.

Leading from the discussion of point 3, it was decided that point 4 should be amended to the following:

Program to be employed to overcome the problems

1. Research (a) Basic knowledge about the resources.
(b) Planning
(c) Applied research to problems
2. Governmental role policies, progress and incentives.
3. Modern social amenities.
4. Transportations.

Major emphasis was given to the need for basic knowledge on a prime requisite to understand and evaluate the problem and to the need for major technical or economic breakthrough in transportation. In making resource inventories, it would be desirable for this to be done on a multiple resource basis as an integrated project. Also, since most of the information needed is of a long term nature, such as climatological, a program should be undertaken immediately. It was noted that the need for research is a main theme of the



-AND DON'T FALL IN!

conference.

The view was expressed that frontier regions do not get the attention which they deserve since their representation is small relative to their geographic size. The general public must be informed about the need for research on, and development of, our frontier regions to bring about political action and this information must take the role of benefit which will accrue to the public.

Emphasis was given to the multiple-resource concept in research investigation and development wherever possible. However, it was realized that the most probable pattern of development is one of single purpose first, followed by multiple-purpose, secondary planning and development. Investigation of specific projects must similarly be primarily single purpose.

The objectives of frontier development were concluded to be job opportunities to facilitate a better standard of living for more people, contribution to general economic development and the stimulation of the economy by productive effort.

In connection with the recommended basic research program, two questions were asked;

- a) Who will do, assist and encourage research?
- b) Who will compile information and act as a clearing house?

It was generally agreed that the federal and provincial government, universities, private companies and research agencies would all carry out research and that the senior levels of government have major responsibilities in this field.

In a previous workshop, a National Renewable Resource Council has been proposed and it was suggested that this could be made responsible for research in this field, particularly in a co-ordinating capacity. To be effective, this agency should be representative of the federal and provincial governments, commercial interests, universities and associations; it should be sufficiently independent to advise and criticize all the foregoing groups in the interests of sound renewable resource utilization and it should not duplicate the function of the existing agencies.

The "Resources for the Future Foundation" was suggested as a model, as were the Canada Council and the proposed Agricultural Economic Policy Council.

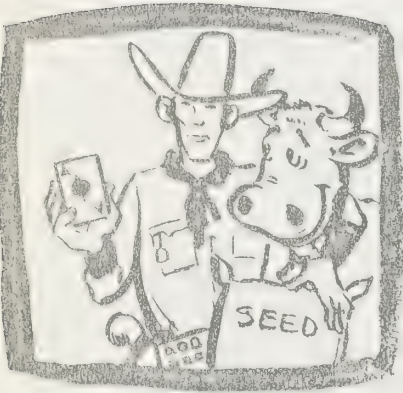
FRONTIER REGIONS - WORKSHOP B2

Planning for a diversified economic base in frontier regions.

Debate in Workshop B2 began with an examination of the first principle which was laid down as a basis of discussion, and which reads: "Everybody agrees that Frontier Regions need to be developed".

The discussion revealed two broad groups of apparently conflicting opinion.

In the first group were those who have apprehensions about forced, or too rapid development of frontier areas. These apprehensions are based partly on the historical experience that northern frontier development in the past had often had the effect of despoiling potentially valuable resource endowments, particularly those affecting the basic soil and water complex. The apprehensions were based also on the view that we do not know enough about many of our frontier areas to develop them integrally, and to take proper precautions to protect the basic soil and water properties. Development should not precede, but should follow the mapping and research and technical surveys that are necessary to permit the development of frontier areas in an integrated way. The emphasis should not be primarily on the exploitation of a single resource but also on the preservation and protection of interdependent natural endowments. Those who commented along this line believed the first principle of discussion to be too categorical and broad. This principle carried the implication that there is a great urgency to develop frontier areas contained within it, therefore the danger that such development might be too rapid, forced, and partial.



PLANNING FOR A DIVERSIFIED
ECONOMIC BASE IN FRONTIER
REGIONS

In the other broad group were those who considered the more rapid development of frontier resources an important objective. While not denying many of the errors of past development, they nevertheless feel that the course of northern settlement need not be destructive. And while not denying the great importance of more knowledge about frontier resources and their interdependence, this group believes that such knowledge is now being developed and will be developed more rapidly, and that we need not despoil resources by failing to plan for their use in an integrated manner. Associated with this view were those who pointed out that whether we like it or not frontier settlement is going ahead and will go ahead more rapidly.

In the end the two broad viewpoints emerged as differences in emphasis rather than conflicts in ideas, and the workshop was able to agree on the following broad proposition.

"Effective development of frontier regions requires detailed knowledge of resources, conditions, and techniques; without careful planning, based on adequate knowledge, development will be unable to realize its full potential. The group therefore recommends increased effort in technical surveys in frontier regions and in northern research."

The other basic principles of discussion were also given attention. In the discussion of the problems of developing frontier regions, a number of obstacles to more rapid growth were cited. Chief among these were the inadequate provision and high cost of transportation and low standards of cultural, educational, and physical community amenities. In addition the general unattractiveness of Northern life to women was mentioned, and this would appear to constitute a pretty serious obstacle to settlement by the general run of males.

Of the resources themselves, which must provide the main basis for providing a source of income in frontier areas, forestry, mining, recreation and tourism hold the greatest potential. Fish and wildlife resources are often potentially lower in frontier regions on a sustained yield basis than in some other parts of Canada. In total however, these resources when harvested from wide areas, have the capacity to generate a significant contribution to the recreational and economic base.

While economic activity of one kind or another has been and will continue to be of great importance as a justification for frontier area development, broad public purposes of a military or administrative kind may also serve as the focus of development.

Whatever the purpose to be served by growth in such areas, however, development will have to be supported by special public assistance to accelerate research and to provide economic aids in the form of subsidies or tax concessions or guarantees to help overcome the problems of high overhead costs, particularly transport costs, and primitive standards of social amenity.

At the conclusion of the meeting the groups agreed on the following statement:

"Frontier development will depend to a considerable extent on the cost of services and the availability of local labour. The group therefore recommends that, in examining the possibilities of establishing new activities in frontier regions, consideration should be given in the first place to those localities in which there is already some established development in order to achieve a more economic use of services, and a more flexible labour supply".

FRONTIER REGIONS

Workshop B3 - "Planning" for a diversified economic base in frontier regions"

This subgroup felt that emphasis in the assumptions should be on the purposeful development of frontier regions for not only indigenous peoples but for the national good, and that additional people are necessary. There is a need for such regions to be developed under proper planning and management.

The discussions of the various resources available to the underdeveloped region brought out the following conclusions and recommendations.

1. In any development plan package, proper management is an essential ingredient. Major consideration should be given in the package to management of other resources (e.g. expensive needs as pollution control) and to social problems.
2. The biological productivity of regions should be considered as a base for social and economic development. Consideration should be given now to the collection and interpretation of basic data, including both existing information and newly-collected information.
3. It is recognized that in a one-resource development there is a shift in the other resource values and thus the economic base becomes broader (as in recreational use).
4. There should be exploration of the possibility of local resources as a basis of development without injecting a large amount of outside capital, and of the advantages of using local skills and reducing social aid costs. Social responsibility toward northern people should be recognized by government, industry, labor and all other agencies.
5. Aesthetic values should not be surrendered entirely to overriding economic considerations in the development of new areas. There is a need for parks, nature preserves and wilderness areas being set aside in frontier areas.
6. Renewable resources which are easy to develop in frontier regions need special consideration in protection and conservation measures.
7. The easy disposal of industrial wastes should not be an inducement to attract industry to frontier areas.
8. The transmission of hydroelectric power is a major problem but economic 1000-mile transmission is in view. There is need for more concentrated study of moving power to load centres and of grid systems.
9. Field husbandry will be of some importance in certain areas, especially culture of vegetables. Animal husbandry, neglected in the past, should explore native species as possibilities for domestication. A number of people felt that such animals have small potential in this respect.
10. Basic meteorologic and hydrologic data are fundamental, and their collection should be intensified.
11. It is recommended that the Roads-to-Resources program be continued with attention to multiple-use possibilities.
12. The proposal that a central committee be established to co-ordinate and carry out research and development is endorsed.
13. It is recommended that an inventory of resources be a responsibility of a suitable council.
14. Federal help is urgent in large-area surveys and in assessment of potential in frontier regions.

RESOURCES FOR TOMORROW CONFERENCE

OCTOBER 23-28 1961

MONTREAL

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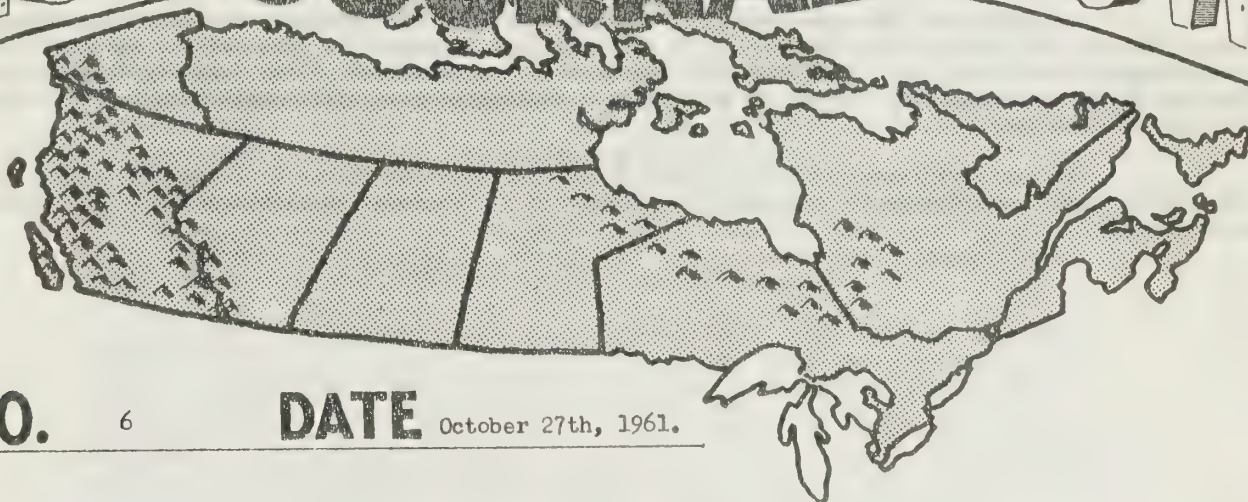
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RESOURCES FOR TOMORROW JOURNAL



NO.

6

DATE

October 27th, 1961.

CONFERENCE ENTERS LAST LAP

Workshop sessions on a sector basis came to a conclusion on Friday. Two panel discussions, one on capital requirements for resource development and the other on income and employment effects of renewable resource development were the focus of conference attention in the afternoon. The City of Montreal reception at the Mountain Chalet provided an enjoyable opportunity to relax after a strenuous day.

On Saturday morning the panel of four speakers on renewable resources and Canada's future will endeavour to bring the various strands of Conference conclusions into a single comprehensive pattern of recommendations.

The Conference program will be concluded at the noon luncheon to be addressed by Paul G. Hoffman, Managing Director, U.N. Special Fund, former Administrator of the Marshall Plan, former Chairman and Director of the Ford Foundation which sponsors Resources For The Future Inc. of the United States of America.

CANADIAN WILDLIFE FEDERATION IS BORN

An immediate by-product of the "Resources for Tomorrow" Conference has been the establishment of a Canadian Wildlife Federation. Its formation was announced Friday noon, and won the unqualified blessing of the Honourable Walter Dinsdale.

In addressing the sportsmen, Mr. Dinsdale said: "The conference speakers have emphasised the human factor as a primary consideration. It is vital that Canadians be informed and educated as to the importance of the wide use of our renewable resources. The formation of the Canada-wide sportsmen's federation is an important step forward in this field. We welcome your willingness to help us in the fulfilment of that task."

Twenty-five years ago the National Wildlife Federation in the U. S. emerged as a result of the 1938 resource conference in that country. The birth of the Canadian counterpart now has followed the same pattern.

ATTENTION ALL RAPORTEURS!

The documentation for a number of workshops is still incomplete, it is imperative for the record of proceedings that we have:

1. Text of lead-off speakers' remarks.
2. Text or summary of discussants' remarks.
3. Any essential clarification or amplification of Journal Reports.

Jack Kinzel will be in Room 340 from 9:00 AM to 12:30 Saturday to receive material or discuss problems. If any of the above elements have not been turned in for your workshop, please contact him.

DAILY JOURNAL WRITES '30' WITH THIS ISSUE

The Daily Journal, perhaps the shortest-lived of any Canadian publication, ceases to exist with this, its sixth issue, even though it has the combined financial backing of the eleven senior Canadian governments.

Its purpose has been to keep delegates to the "Resources for Tomorrow" Conference informed as to conference activities generally, and to workshops in particular. The bulk of the material came from hard-working rapporteurs, whose workshop reports have received considerable attention.

The material supplied by the rapporteurs will form the basis of the third volume of the "Resources for Tomorrow" publication, a report on the conference itself. But whereas the rapporteurs' reports were written under pressure of nightly deadlines, the third volume will contain the carefully-edited, sophisticated writings that one would expect for a permanent record of this important conference. To that end, the prepared texts of lead-off speakers and discussants will be reprinted, while the final reports on discussions within workshops will be carefully checked with workshop leaders, speakers and rapporteurs.

ACKNOWLEDGMENTS . . .

- . To Hydro-Québec, who provided skilled editors and translators for the French version of the Daily Journal. The editors responded to a late request for their services with energy.
- . To the Queen's Printer staff, who faced an abnormally-heavy production problem with high efficiency, if with no sleep.
- . To members of the stenographic pool, borrowed from various federal government departments, who tackled a heavy volume of scripts, reports and tapes.
- . To the Tourist bureau of the Province of Quebec and City of Montreal for their splendid arrangements for the ladies' program.
- . To rapporteurs, whose on-deadline reports will form the basis for Volume 3 of the Resources For Tomorrow publication.
- . To leadership groups for their intensive preparations and continuing discussions, which led to the smooth conduct of sessions.
- . To all participants, whose serious work and attention to workshops and plenary sessions was a reflection of their grasp of the importance of the conference.

TWO EXCELLENT DINNER ADDRESSES

The Quebec-Ontario dinner on Thursday was made particularly memorable by the delivery of speeches by the two Conference Vice-Chairmen, the first by Honourable René Lévesque, Minister, Department of Natural Resources, Quebec, the second by Honourable J. W. Spooner, Minister of Lands and Forests, Ontario.

"If this Conference is to be a real landmark", said Mr. Lévesque, "and it can be, we must think of tomorrow -- and that means the next fifteen or twenty years. 'Tomorrow' means 'Resources' and a lot more," the Quebec Minister pointed out. "It means our position on the North American continent, also our situation facing the USSR and our situation in the world. Here we are a nation of over-advantaged compared to uncounted millions of the hungry and needy. In this country also 'tomorrow' will still mean Confederation, which is a very complicated set-up with eleven senior governments and with every decision (on resource development) jointly arrived at."

"We must take back to our various seats of government the recommendations of this Conference and see how they fit (our particular needs)". Mr. Lévesque drew a smile from the large audience when he quoted a definition attributed to Sir Winston Churchill, "Democracy is the worst kind of government except all others". "But", added Mr. Lévesque, "Churchill never lived in a Confederation."

Mr. Lévesque emphasized that Conference talks on resource development were but a beginning in "a long alphabet of economic activity. Essentially the Conference is a preliminary effort to assess one basic part of our whole economic situation."

Honourable J. W. Spooner, sounded a clear warning note for government and industry to heed in the matter of marketing Canada's forest products. "We must plan for forest production in the right place and at the right price," he said, "We must give thought to where we can produce wood most cheaply; whether by opening up new areas of forest in the far north, or by increasing the growth rate of the forest areas close to our mills and markets. In the one case we must improve transportation; and in the other, we must intensify forest management."

"We must remember that we are faced with potential competition from the USSR, which has resources to grow and harvest more forest products than we can in Canada. Their products will compete directly with the lumber and pulp and paper we sell on world markets."

"Canada and the USSR are the only countries that can greatly increase their production from temperate coniferous stands. The USSR may be able to meet the increase in world demand alone. We must not let them take our share".

The speaker concluded with the ringing assertion that although "It is quite proper that we should be concerned about our research and our resource economics, this is not all that the Conference is concerned with..... We can and we must grow food and wood to feed, clothe and shelter the hungry people of other countries. We must provide paper by which the people of the world can be educated and informed. With our resources we can provide means to raise from poverty and illiteracy those who have great need, but cannot raise themselves by their own efforts alone."

CAPITAL REQUIREMENTS FOR RESOURCE DEVELOPMENT

The problem of creating a climate favorable to investment in renewable resources required adherence to seven major principles, Max W. Mackenzie, principal speaker, contended before the plenary session on Capital Requirements for Resource Development.

The speaker considered that the following points were indispensable to the full effectiveness of such a program:

1. That we clearly recognize that utilization of our resources depends on market demands for final products, demands which arise to a very large extent outside the boundaries of Canada.

2. Accordingly we should welcome foreign capital at least as far as resource development is concerned and give it exactly the same consideration as we give Canadian capital.

3. We do not shrink from asserting the public responsibility which belongs to governments for controlling in the national interest the terms on which our resources are used and renewed. In particular, such public policies should include encouragement to processing in Canada where it is economically feasible to do so. But such policies should not seek to push processing at all costs.

4. We should gradually take a more flexible attitude toward policies related to the export of hydro-electric power. Rapidly-changing conditions may soon compel us to reconsider our reluctance to enter into contract commitments for sale of such power across our borders.

5. We must do our full share in encouraging world trade and we cannot contemplate any action which would turn Canada into a highly-protectionist country. The only way to utilize our resources fully is to develop them for export.

6. At the same time we need to exercise, in the face of present world conditions, a moderate and judicious use of tariffs to ensure a measure of vigorous diversity in our industrial structure.

7. In general, the efficiency and competing ability of modern resource development depends on a generally-favorable industrial climate. We need a vigorous economy in which employment is high, research is active and technology advances on a broad front.

In general, panel members agreed with the speaker's concept of needs involved in creating a climate for investment capital, although one member was of the opinion that in the case of Newfoundland it was the duty of government to make major concessions to capital interested in developing renewable resources. He pointed out that the province assures development capital, whether Canadian, American or European: "You are as welcome as the flowers in May". The speaker mentioned special tax concessions and other inducements to capital investment but these must be based on a reputation for integrity. He felt that most of the inducement possibilities presently rest within the control of the federal government.

It was his opinion that it was the job of investment capital in a private enterprise system to develop resources on a profitable basis, as government budgets precluded direct government support in this field. It was wise to make concessions to investors and allow them to bring the benefits of industry to the province at a profit to themselves.

An almost diametrically-opposite opinion was expressed by a panel member from Saskatchewan who felt that certain experiments mounted by the government of that province in the field of financial support for secondary industries had proved successful. He cited examples to show that government support in this field had resulted in the creation of a number of successful ventures with benefit to the province's economy. Similar programs had met with success in Nova Scotia and later in Manitoba.

In discussing capital requirements of water resource development, one panelist believed that the infusion of new capital might help the country but need not be the answer in every case. He considered that tighter budgets and better management techniques are needed and that these, in turn, might limit "our capital requirements for water development in Canada".

He felt that the water resources picture in this country was a constantly-changing one and that the vision of hydro-power in great quantity meant substantial wealth was not entirely valid and was, in fact, becoming less valid with every passing day. He said that under many conditions thermal power was proving to be more economic and that this type of power had found its way into British Columbia, a province reputed to be rich in developed and prospective hydro-power.

The unit cost of thermal power is about the same as it was thirty or forty years ago, this panelist said. "In fact," he pointed out, "in the United States this unit cost has actually dropped

about ten per cent since the late 1940's. Here in Canada the price of electricity has gone up by at least thirty per cent and in Sweden, a country also very dependent on hydro power, it had risen more than sixty per cent.

Another panel member drew attention to the recent announcement by the Premier of Quebec of a new general fiscal and development program in that province. This program was designed to channel into industrial activity and into more diversified development of natural resources the savings of depositors. It would be helpful also if banking institutions could enter more actively into the sharing of risks in developing resources in the province.

As to the creation of a climate favorable to investment in renewable resources in Canada as a whole, another speaker felt that nothing could be more persuasive than success. "Success can be ensured by good management, and good management in turn implies the careful selection of our lowest-cost resource development opportunities. If we organize our efforts along these lines we should be able to raise all the funds we need. Technical competence and political stability are two of the pillars on which we can build. A resource development policy based on sound economic reasoning is another."

INCOME AND EMPLOYMENT EFFECTS ON RENEWABLE RESOURCE DEVELOPMENT

Conflicting opinions on whether or not Canada should participate in common market areas and the unanimous expression of a need for a new look at training for unskilled and semi-skilled workers in the resource field highlighted a stimulating panel on Income and Employment Effects on Renewable Resources.

Principal Speaker, W. R. Dymond, Assistant Deputy Minister of the Federal Department of Trade and Commerce, made use of statistics to indicate the decline of the labour force in the primary resource field.

In 1901, the number of persons in Canada occupied in the primary sector of Agriculture, Forestry, Fishing and Trapping, was three-quarters of a million, or 43 per cent of the total of 1.8 million persons gainfully occupied in Canada. By 1951, the proportion had dropped to 18 per cent of the total work force. Although the number occupied in these industries had risen to one million, the total in all industries had risen to 5.2 million.

The greatest change has been in Ontario where the percentage, once 42, stood in 1951 at 12 per cent. In the decade from 1949 to 1959, the resource primary labour force of Canada had dropped 32 per cent. In 1949, employment in both the primary and secondary sector of the four named resource industries included 1.7 million persons, or 35 per cent of total employment in Canada of 4.9 million. By 1959, this proportion had dropped to 23 per cent of the total, as the number employed in these industries had declined to 1.4 million while total employment rose to 5.9 million.

Undoubtedly, this decline cannot continue at its present rate, or within twenty-five years this nation would have no one working in these fields. However, our resources must be developed to provide employment opportunities for our ever-increasing labour force.

Research, together with accelerated programs, must be considered to make our resources provide jobs for our people.

Maurice Lamontagne, economiste de l'Université d'Ottawa, outlined the economic and employment effects of development of our resources.

Until 1900, our economic growth was slow indeed, he said. The only resources used were those of our fishing fleets and our fur-bearing animals.

Between 1800 and 1850 the English market began to absorb our wood, wheat and flour products. The next fifty years could be designated as "the years of stagnation." At the turn of the century, our economy was based on steel and coal production.

Utilization of our natural resources has been a dominant factor in all our economic history. Although Canada has an abundance of natural resources, it does not necessarily mean that we are a rich and prosperous nation. In the period 1950-1956 the gross national product increased six per cent per year compared with 1.5 per cent increase since 1957. It is not sufficient just to plan for acceleration of the development of our resources; it is also necessary to sell our products. This is our main problem in what was described as our present period of stagnation.

J. A. Roberts, Deputy Minister of Trade and Commerce, urged more applied industrial research. This is vital, he said, if Canada is to maintain her position in the world markets.

Mr. Roberts said Canada's natural resources make up nearly 90 per cent of its total exports. While the demand for resource products will expand, competition will increase and Canada must be in a position to meet the challenge.

While not pessimistic about the future, Mr. Roberts warned that Canada's problems could not be solved by waving a magic hand.

"The path ahead is not easy," he said. "We have to produce efficiently and economically. The question is not whether to join trading groups."

Dalton Robertson, associate editor of the Financial Post, discussed government policies as they relate to resource development. He concluded that intelligent use of our resources to provide jobs is up to private enterprise. "But, let's face it," he said, "creating the climate suitable for efficient expansion in the private sector is very much up to general government policies."

The supply and demand situation and the employment and income realities in the renewable resource industries suggest that government policies must go far beyond straight and simple conservation because it's a "good" thing, and far beyond maintenance of industrial raw materials because there might, in some far day, be a shortage.

Resource policy, said Mr. Robertson, is plainly only a part of the whole problem of running an economy to maximize or at least to maintain employment and income -- and it can't be looked upon as an area for isolated activity.

Dr. D. E. Armstrong, director of the school of commerce, McGill University, recommended that governments and industries undertake an industry-by-industry study of the consequences of joining a common market. He also called for a companion study of the consequences of not joining a larger market area.

In 30 years, Dr. Armstrong said, a self-contained Canada would have the lowest standard of living of any important country in the western world, while others progressed beyond us.

The only way to alter significantly the rate at which Canada's natural resources are to be developed is to alter the relative importance of her foreign trade.

The world, he said, is becoming organized into large common markets -- trade areas that will continue to grow in importance. Canada faces the choice of joining one of these areas or of trying to go it alone.

"Only if we decide to join a common market will we fully develop our natural resources," Dr. Armstrong said.

The question of which products have priority for research development brought the answer for the panel that the greatest export potential of this country would remain in lumber-based products, the aluminium industry, iron and steel primary industry and agriculture.

Referring to the apparent low level of education and skills among workers who move from primary to secondary industry, the question was asked as to whether or not this was true in the reverse: moving from secondary jobs on assembly lines to primary resource fields in agriculture, forestry, fisheries, etc. This presented the panel with the opportunity of stressing the point there is a very great necessity to re-educate, educate, and train workers in a definite skill. In general it is found that the average primary resource worker lacks the technical training necessary for work in industry.

The main field of discussion centered around the matter of Canada's participation in a common market. When asked about the wisdom of this nation moving towards greater trade with socialist nations, particularly the U.S.S.R., Mr. J. A. Roberts stressed the fact that the Communist bloc use trade for their own purposes. State-directed trade policies are but an arm of their economic and cold-war planning. As long as Canada is a free nation we must not and cannot afford to consider seriously such trade alliances. Is the "Resources for Tomorrow" Conference a vain hope? Are world market doors being closed to us if we do not join either the European Common Market or create a common market with the U.S.?

According to Mr. Roberts, while our economic path is not smooth there is no need for pessimism. He stated that the main consideration before the nation was whether we can produce goods efficiently and economically in order to meet world competition. As world trading patterns change our efforts should be directed towards working with other free nations to secure the freest trade possible among ourselves.

REVIEW OF AGRICULTURE - WORKSHOP B

Withdrawing submarginal lands from Agriculture and shifting to Higher Uses

I The report of Tuesday's workshop discussion was reviewed by the meeting and approved with the addition of two points that were omitted:

- (a) There was concern expressed about the effects of increasing capitalization in industry and other sectors of the economy which affect the economic position of the farmers.
- (b) There is a need for research into the problems of interim economic adjustments in the short run as well as into the problems of adjustment toward long-range goals.

II. The participants adopted the revised assumptions and principles which formed the basis for the discussions and conclusions of the workshop.

A. ASSUMPTIONS

1. Adjustment on land in agriculture implies the most desired and effective use of land, and improvement in the welfare of rural people.
2. Adjustments are required in the use of land and in the organization of social and community organizations, including local government.
3. The organization of production and the use of labour can be modified to expand or reduce output of certain products.
4. Demand projections and land use capabilities provide a basis for planning adjustments in agricultural production to meet expanding and changing consumption needs.
5. Long-run demand projections (20-40 years) provide a basis for a major expansion and shifts in production, but short run pressures on demand do not support the need for policies and programs that would expand production.
6. Family farming predominates in Canadian agriculture and will continue to do so in the foreseeable future.
7. The adoption of known scientific knowledge and proven practices on a wide scale can increase production by 50 to 100%.
8. Adjustment may involve shifts of people and will require policies to facilitate such movement and necessary relocation.

B. PRINCIPLES

1. Adjustment requirements in agriculture can only be assessed and defined in relation to the whole complex of national and international conditions and policies, economic and social.
2. Policies and programs designed to bring about adjustments necessary to the long-run interests and needs of society may not fully meet the economic and social needs of farm families in the shorter run. Problems thus created should be considered in assessing and planning the total framework of agricultural policy.
3. Social and economic considerations merit the development of clearly defined governmental policies that will enable farmers to adjust to changing conditions.
4. Adjustment on land in agriculture should be developed within a framework of consistent national and provincial policies, with provision for provincial, regional and local flexibility. Policy determination should provide for participation by the levels of governments concerned and by rural people involved.
5. Programs of agricultural adjustment should be based on research and planning on:
 - (a) economic aspects (in terms of both individual farmers and the industry, national monetary and fiscal policies, etc.);
 - (b) social aspects (effect on rural people, etc.);
 - (c) physical aspects (soil research, land use potentials, etc.);

(d) developmental aspects (financing, timing, etc.).

6. Special consideration should be given to developing policies that will raise the educational level of rural people.

III. Reports were received on these aspects of the Wednesday and Thursday sessions that were deemed to be important to the deliberations of the Agriculture B Workshop.

IV. Several participants offered well-thought-out statements for the consideration of the workshop with a view to crystallizing the thinking of the group. After some discussion the workshop formulated the following recommendations for the consideration of the Conference Steering Committee:

- (i) It is necessary that each province compile all its existing information and data pertinent to the use of land.
- (ii) These data should be evaluated by the province and the evaluations integrated on a national basis with a view to achieving uniform standards.
- (iii) The evaluations will indicate the need for additional surveys and research to complete the inventories.
- (iv) Land should not be indiscriminately released from agriculture for other uses without consideration of its quality for crop production, since the production of food and fibre has a high priority.
- (v) Land unsuitable for cultivation should be shifted to other uses, either agricultural or non-agricultural in order to increase economic productivity and improve social conditions.
- (vi) Policies involving the purchase of land are essential to facilitate the adjustment of the use of agricultural land units of large or small size.
- (vii) Any program involving the relocation of people must provide for both financial assistance and retraining. Facilities for retraining must be made available locally and be adapted to local conditions and current employment prospects.
- (viii) There is a need for assistance to individual farmers to help them make adjustments in the use of land on their own farms.
- (ix) A successful rural development program requires that we achieve a balance in carrying out research and extension in the physical, economic and social aspects of land use.

V. In addition to the above recommendations that were unanimously adopted, the following contributions were made:

1. The province must retain control of the land resources.
2. Adjustments on land in agriculture will be greatly influenced by the Agricultural Rehabilitation and Development Act program. This program is primarily agricultural in nature and its implementation should remain in the hands of agriculture rather than in that of any proposed national renewable resources council.
3. It is impossible to discuss land use adjustment without taking cognizance of the importance of economic growth and development. ARDA is a new major concept in agriculture and in its implementation the complexity of the total economic framework must be recognized.

REVIEW OF FISHERIES-WORKSHOP "A"

Maintaining Adequate Stock

The lead-off speaker was Dr. K.H. Doan, and the discussants were Mrs. W.A. Clemens and A.L. Fritchard. Three general points were given emphasis in their presentations:

1. Fish are extremely sensitive to changes in their environment and to man's activities, particularly those that change water quality.
2. Potential productive capacity on a sustained basis cannot be achieved without a good understanding of the biology of the stock being fished.
3. The objectives of fishery regulations must be appreciated by those engaged in the fishery, as well as by those who administer it. A fishery is essentially an experiment requiring continued study to achieve full understanding and realization of its potential.

PACIFIC MARINE AND ANADROMOUS FISHERIES

SALMON

Continued high demand is forecast for supplies of sockeye, pink, chum, coho and chinook salmon for the commercial fishery, and of coho, chinook and some pink salmon for the sport fishery, also steelhead, cutthroat trout.

Substantially increased supplies of sockeye pinks and chums are possible from the increase of currently depleted runs to the point of maximum productivity. This can be achieved only by strict and selective regulation of fishing, supplemented by improvement of spawning facilities and perhaps locally by artificial propagation. Coho and chinook salmon offer rather small opportunities for increase.

For attainment of these objectives, the workshop recommends:

- (1) that international regulation of Fraser River sockeye and pink salmon stocks be continued and that these and other stocks be built up to maximum production as rapidly as feasible;
- (2) that the strongest efforts be made to continue existing regulations and agreements that prohibit high-seas net fishing for salmon in the eastern Pacific by Canada, the United States and Japan; and that other countries be discouraged from harvesting these fully-utilized fish;
- (3) that research be continued and intensified to learn the capacity of salmon to surmount obstructions and to tolerate polluting substances, to design fishways and by-passes for upstream and downstream migrants, so that present obstacles to migration may be remedied and future ones avoided;
- (4) that no additional uses of water on salmon rivers be initiated (e.g. for waste disposal or hydro-electric power), except such as are certain not to reduce salmon production;
- (5) that improvements of spawning and rearing areas be carried out wherever major benefits are possible.

HERRING

For the present level of utilization, the supply of herring is sufficient and is likely to remain so. Some expansion is possible if demand increases. The workshop recommends that study of herring be continued, especially to determine the size of spawning stock needed for maximum average recruitment of each population, and to determine what environmental factors cause variation in year-class strength.

HALIBUT

Demand for halibut is likely to increase gradually, and some increase in production may be possible. The workshop recommends that international regulation by Canada and the United States be continued, and that efforts should be continued to persuade other nations to refrain from entering this fishery. It is important that research be continued to define more closely the level of maximum sustained yield in this intensive fishery, and its possible fluctuations with environmental conditions.

OTHER GROUNDFISHES

Gradual increase in demand is likely for soles, cod, lingcod, black cod, rockfishes, etc., and supplies of most species will permit expansion of production. The Workshop recommends that research be continued to define the level of fishing at which each species or group of species will come into maximum production.

OYSTERS AND CLAMS

Gradual increase in demand for oysters is likely, and intensive culture by present methods could increase yield 4-fold. More intensive utilization of leased grounds should be encouraged, and research continued on new procedures. Study of best utilization of clams should be continued; increase in production of at least one kind is possible.

CRABS AND SHRIMPS

Continued study is recommended to define the best level of utilization and to locate possible new stocks.

OTHER FISHES

The Workshop recommends that exploration and inventory be made for fishes that at present are not utilized or are little utilized, for example pilchards, albacore, pomfret, sauries. Other species, such as dogfish, are known to be available and the catch might be greatly increased if marketability, processing methods or fishing efficiency could be improved.

MARINE MAMMALS

The Workshop recommends that present international utilization of fur seal herds be continued, stocks of whales can support a controlled fishery, and sea-lions are a minor resource. It is suggested that the re-establishment of sea-otters on the British Columbia coast be given serious study.

GROUNDFISHES

The various groundfishes - cod, hadlock, redfish, halibut, smaller flatfishes, etc., are of varied importance. Some population are utilized by many nations and are potentially subjects to overexploitation. Others are fished very little and there is room for great expansion. The collection of adequate statistics from all nations is most important. Rate of growth, age structure, catch per unit effort, etc., should be continuously studied to learn the level of maximum yield and to detect depletion should it occur. The only protection groundfish have at present is through the International Commission for the Northwest Atlantic Fisheries. The Workshop strongly recommends that minimum mesh regulations now in force, and other possible management measures, be continuously studied with the object of increasing total yield.

PELAGIC FISHES

Pelagic species, notably herring, swordfish, mackerel, tuna and sharks, as a group, offer large potential for expanded production. The Workshop recommends that exploration and biological studies be continued toward that end.

LOBSTERS

Conservation measures in use now permit this species to sustain itself at a high level of yield. The problem of infraction of regulations is serious in some areas, and requires further educational effort as well as the strictest possible enforcement.

SCALLOPS

The scallop fishery is most active on Georges Bank, where Canada is taking an increasing share of the international catch. The Workshop recommends that international research be continued to make best use of stocks and also that Canada make efforts to expand utilization of other stocks.

OYSTERS

Increased supplies of oysters can come from more intensive utilization of leased beds and re-establishment of stocks depleted by disease. The Workshop recommends that study be continued of improved culture methods.

CLAMS

Less wasteful harvesting, improvement of grounds, and use of less accessible stocks should gradually increase landings of softshell clams. Certain populations are affected by pollution, and action should be taken to alleviate this unfavourable condition. Efforts should be made to utilize other kinds of clams more fully.

SALMON

The Atlantic salmon will continue to be in high demand in future for both sport and commercial use.

The Workshop believes that undue pessimism about salmon is not warranted, and that adequate regulation with strict enforcement will permit it to maintain itself or even increase in most areas. It is necessary, however, that damage from forest spraying be overcome by discovery of new insecticides or new techniques, an increased attention should be given to this matter. Furthermore, complete utilization of a river such as the St. John for hydro-electric power may prove inconsistent with having salmon.

To increase productivity of salmon, the Workshop recommends the closest possible co-operation in regulation between federal and provincial governments and among the provinces themselves. In addition, increased planting of young fish is required on streams where spawning is inadequate.

OTHER SPECIES

Species such as eels, smelt, capelin, alewives, shad, billfish, etc., are of minor commercial importance at present. Capelin and possibly billfish offer possibilities for large industries, and appropriate studies should be made.

MARINE MAMMALS

The Workshop recommends that international management of harp seal herds be implemented as soon as possible.

FRESHWATER FISHERIES

An increasing demand is seen for freshwater commercial and game fish. The potential production and value of this resource are not known and the prospects of meeting the demand has not been assured. The fishery resources in remote areas should be investigated before utilization.

In many of our established freshwater fisheries, there is not at present available enough biological knowledge to maintain some stocks or properly utilize others. The Workshop therefore recommends that the level of fishery investigations be increased. To ensure adequate support for this work, a clear demonstration of the value of our freshwater fisheries is essential. The Workshop urges that a survey be made of two social and economic importance of sport fisheries.

The freshwater environment is particularly sensitive to man's activities. Recognition must be given to the fact that the maintenance of fish stocks, particularly the more desirable species, is dependent on the maintenance of suitable environmental conditions.

REVIEW OF FISHERIES - WORKSHOP B

Attaining more efficient operations in the fishing industry.

This report combines the original Tuesday workshop sessions and the Friday review. On Tuesday, C.J. Morrow, the lead-off speaker, began the workshop with the general observation that although many groups existed for the discussion of fisheries problems, neither individually or collectively had they been able "to clearly set out the problems of the fishing industry in terms which would lead to a logical program for more efficient operations in the future". Contributing to this inability to grasp "the basic pattern for sound development" were the complexity of the industry and its declining role in the Canadian economy.

The competitive structure of the industry is not a basic fault and low profits testify to the narrow margin of operations. In fact, the low profits and current tax laws combine to discourage capital investment and are in part responsible for slow progress. Decreased competition between sellers on export markets and more orderly marketing could result in larger returns to both fishermen and industry.

Although there exist possibilities for increased catches of many species, it is doubtful if the future intensity of fishing by vessels of foreign countries can be predicted. Nevertheless it seems likely that we will continue to be able to meet any increased demand in the Canadian and United States markets. We should enlarge our attempts to increase per capita consumption of fish.

There are indications of economic inefficiency in fisheries of both coasts, - too many men, too many small units of gear, and seasonal operations of processing plants. Education at all levels is needed to ensure technological progress.

The discussants, Messrs. H. Stevens and E.M. Gosse, agreed with the view that the fishing industry is at present economically inefficient and made a variety of suggestions for ways of curing the industry's ailments. Mr. Stevens advocated license limitation for certain fisheries as a device for increasing economic return, a view strongly developed in the background paper by Professor Crutchfield. It was suggested that part of the saving so effected could be diverted into improvement of salmon fisheries and greater research expenditures. Problems of readjustment for fishermen were serious and demanded government consideration. Expansion into new fisheries would create employment, ease current hardship resulting from seasonal fisheries, and improve our international position in world sea fisheries competition. Means must be found for marketing our fish in areas of overpopulation. "Co-operative development and public ownership and control" were suggested as perhaps the "only logical means" of making most efficient use of fisheries resources.

Drawing examples from the Newfoundland fisheries, Mr. Gosse re-emphasized the problems of international fishing fleets, government aid programs, education, research, regional economic patterns, marketing and competition. He advocated orderly marketing and education of fishermen as two important areas for study.

Mr. J.G. Cowan briefly reviewed the similar types of problems confronting the inland fisheries.

Nature of Problem

In a general discussion of the nature of the problem of attaining more efficient operations, certain inefficiencies in fishing and processing operations were recognized.

In fishing operations, inefficiency results from three major causes. These are ineffective use of labour and capital, the seasonal nature of most fishing operations, and the inadequate fishing methods in many areas.

In most commercial fisheries Canada has too many fishermen and too much capital devoted to present levels of fish production. This results from the common property nature of the resource and the unrestricted right of entry of Canadian fishermen in most fisheries.

Seasonal inefficiencies of fishing operations result from such causes as fluctuations in fish abundance, changes in weather and ice conditions for fishing, effects of fisheries regulations which are designed to conserve the fisheries, and the limited diversity in the number of species and areas fished.

Fishing methods can be improved in many regions. For a variety of reasons, including regulations, the most efficient gears are not always being used. Fishing craft have increased in size, but relatively few are large enough or sufficiently well equipped for year-round, mobile, flexible, centralized operations. More efficient operations would also be desirable in fleet operations, collection and transportation of fish to processing plants in some fisheries.

In processing operations we find modern mechanized fish plants in all areas, but we still find room for improvement related to the primary fishing and the tertiary marketing levels of fish production.

Fish production fluctuates widely and in an unpredictable manner from year to year. These annual changes together with the difficult seasonal nature of fishing operations noted above constitute most serious problems for the processing industry.

Marketing includes a number of problems. Increased demand has been limited by numbers of consumers in existing markets. Per capita fish consumption does not appear to be increasing with improvements in variety and quality of fisheries products. Promotion of fish sales has been on a small scale compared with many other food products. There is certainly room for improvement in marketing procedures which will stabilize fish prices.

The Workshop recognized the problems resulting from international competition in fisheries. Competition for exploitation of resources in international waters leads to changes in the abundance and sizes of fish available to Canadian fishermen. This is resulting in reduced economic returns for effort expended in fishing.

International competition is also important in the marketing of fish, particularly in export markets. Foreign competitors of Canadian industry are catching fish with efficient methods which are often subsidized by Government. In order to continue high exports of fish it is necessary to sell fish of high quality at competitive prices. This makes increased efficiency of all operations essential.

The Workshop noted the lack of clear understanding concerning the Canadian policy for fisheries. Many programs in Fisheries, Transport, Labour and Public Works Departments of the Federal Government, and in the Provincial Governments, are encouraging more efficient fishing and processing operations. These include research development, education, inspection, consumer, insurance, harbour development, subsidy, loan and trade programs. It was noted that increased integration of these programs into a national policy is desirable.

RECOMMENDATIONS

Fisheries regulations

A major problem in the fisheries arises from the free or nominal cost of rights to exploit a common property resource. This problem is most sharply pointed up in those fisheries where there is relative scarcity of supply with the consequences of entry of too many fishermen, together with excess investment of capital.

Further problems develop from the impact of other regulations on the fishing industry in matters such as taxation.

The Workshop recommends that government policies for the fishing industry be designed to bring about greater efficiency in the use of manpower and capital. In other words policies should be devised to encourage the taking of the optimum catch as this is related to satisfactory returns throughout the industry.

It is recommended also that the structure of taxation and related matters be so adjusted as to provide greater incentives in all phases of the fisheries industry.

To facilitate formulation of programs and policies related to the foregoing recommendations, the Workshop agreed that intensification of economic and technical research for the fisheries was essential.

2. Development of the Fisheries

The meeting took note of the increasing competition to Canada from a number of countries in taking certain fish stocks. Without suggesting a large-scale expansion into the sea fisheries, it was nevertheless the opinion of the Workshop that Canada might find opportunities for increased catches if more direct assistance in exploratory and experimental fishing were undertaken.

The Workshop recommends that exploratory fishing expeditions be undertaken for the purpose of finding stocks and also discovering the best means of taking these. However, this proposal is contingent upon provision of the facilities required to take advantage of the discoveries.

3. Education

The needs in the fisheries for improvement in the skills of all those connected with fisheries occupations was agreed. It was noted that policies for education and extension work for fisheries might vary regionally and that requirements would dictate the kinds of programs adopted. Nevertheless there was a consensus that training for the fisheries in particular disciplines and techniques should be a co-ordinated effort within regions. There was notation of the need for training programs to be related to programs of government assistance and to technological change within the industry.

In addition, attention was called to the desirability of high standards for recruitment of personnel in both government and industry employment and the need to provide for this through educational and training facilities.

In this connection, it was noted also that fisheries lag behind our other natural resources in the field of education and although in fisheries, research is well organized, there is still a serious lack of proper institutions of learning to dispense fisheries education at the college level in particular and at lower levels also.

This workshop accordingly recommends a well co-ordinated scheme of fisheries education at all levels (college, technical and adult) and by all media, in order to insure the application of knowledge and techniques to the fishing industry.

4. Processing Operations

As in most industries, instances of inefficient operations can be found in fish processing. It was agreed that having regard to the conditions under which the industry operates, its efficiency is relatively high. The chief limitations to improved efficiency arise from seasonal and year-to-year variations in supplies of the raw material.

The Workshop recommends that further increases in efficiency in processing operations be facilitated. As appropriate increases in efficiency may be achieved by greater centralization, flexibility in fleets supplying the plants so as to reduce seasonal and year-to-year variations in supply. Industry and government research programs should continue to work to improve and develop products of the fisheries.

5. Marketing

The Workshop considered the marketing problems at two levels - the supply and purchase of fish from fishermen and the sale of the products from processing establishments. Discussion of the sale at "port markets" brought under consideration types and forms of marketing boards but with no firm conclusions as to the organizations desired.

Importance was attached to the need for improvement in marketing the products. In this connection there was a number of references to "orderly" marketing.

Those problems relating to the marketing of Canadian fishery products abroad were recognized as intricate and complicated. It was observed that the government was undertaking a number of special trade missions in an endeavor to expand existing markets and to find new markets for fisheries products.

As well, recognition of the efforts of international agencies was taken in their endeavors to alleviate hunger and nutritional needs.

The development of the domestic market could provide opportunities for the Canadian industry. Much more needs to be known about food habits of Canadians, however, before any large-scale market development program can be planned. This program should be developed largely by industry after research and investigations by government and in consultation with industry.

The Workshop supports and requests continuation of the export market expansion program; it recommends that detailed surveys be undertaken of the domestic market for fisheries products.

6. Readjustment

The Workshop recognized the sociological implications of attaining more efficient operations in the fishing industry. It was recognized that readjustment solutions are not the responsibility of fisheries, but rather overall, regional problems. Short-term subsidies, vocational training, and transplantation allowances were noted as methods of meeting the rehabilitation needs.

It was recommended that rehabilitation should be recognized to be important in fisheries as well as in other primary industries, and that consideration should be given to appropriate government action associated with that provided for agriculture by the Agricultural Rehabilitation and Development Act (ARDA).

7. Territorial Waters

The Workshop agreed that questions of territorial waters play a significant role in determining the success and efficiency of Canadian fishing operations. They recognize however that many considerations other than fisheries are involved, including international relations of a complex nature. The meeting recognized a distinction between the problem of territorial waters and that of Canadian exclusive fishing zones. The Workshop commends the policies which the Canadian Government have been pursuing in this regard.

8. Further Resources for Tomorrow Conferences

Recognizing the value of the discussions which have been held, the Workshop commends those responsible for the conference and recommends that consideration be given to the organizing of further conferences of this kind. It is recommended that although the contributions of academic and civil service representatives are valuable and are appreciated, a greater degree of participation by people engaged in commercial fishing operations would be desirable.

REVIEW OF FORESTRY - WORKSHOP A

Improving the environment within which substantial increase in output of forest products may be obtained within competitive cost limits

Assumptions and principles agreed upon

- (1) The physical supply of forest resources is adequate to allow a substantial output of forest products on a sustained yield basis.
- (2) The world demand for forest products will continue to increase at a rapid rate and almost double by 1980.
- (3) The problem for Canada lies in meeting competition in the sale of forest products on world markets.

Summaries of discussion

No attempts have been made to summarize the rapidly progressing and sometimes complex and marginal discussion which, in all cases, led to a final agreement as expressed under conclusions and proposals.

Conclusions and proposals

Topic

Improving the environment (administrative, jurisdictional and economic) within which a substantial increase in output of forest products may be obtained within competitive cost limits.

Jurisdiction

To provide improvement in the lagging economy of forest industry, taxation and public charges at all levels of government (in particular provincial and federal) should be designed to encourage the optimum development of the forest resources and industries. To this end these matters should be studied by a qualified agency and the results should be referred to all administrative authorities for the determination of policy. This policy should provide for:

- (a) A profitability rate that allows for expansion and revision of existing facilities,
- (b) Taxation incentives to stimulate the development of new industries,
- (c) Extension of research in product and process development, and
- (d) Economic replacement of forest stands on lands deemed desirable.

Consideration should be given to the advantages of public enterprises and co-operative organizations in the development of forest resources and the marketing of forest products providing fair competition is maintained.

Legislation

Provincial legislation should be reviewed and revised where necessary to stimulate and facilitate modern policies of forest administration.

Research

There are four bodies interested in carrying out forest research. Universities and the federal government should be well organized, equipped and staffed to carry out more fundamental lines, and provinces and industry should be organized to carry out more work related to operations systems. More research should be directed toward immediate problems without curtailing long-term research. Introduction of an expanded federal, provincial and industry system of grants to universities and for scholarships for outstanding post-graduate students is recommended. It is suggested that co-ordination of such a research plan might be entrusted to a board made up of representatives from universities, the federal and provincial governments and industry.

Management

Since our ability to compete with other countries is affected by the cost of forest operations, our forest policies should be improved toward

- (a) High-intensity management in easily accessible regions, and
- (b) the orderly development of less accessible areas through construction of access roads and other necessary improvements.

Royalties

In the interest of stimulating forest management and cost reduction, consideration should be given to a system of economic rent in lieu of stumpage charges. This rent should be based upon the productive capacity of the land, its nearness to mills and markets and other relevant factors.

Marketing

Our country having lost its long privileged situation on the world market of forest products and having lost sales of pulp products due to the recent integration of the U.S. pulp and paper industry, it is recommended

- (a) that the federal government continue to work toward improving trade policies exploring all possibilities in a manner to increase sale of forest products on world markets and in trading blocks such as E.E.C., E.F.T.A., Asia, Africa and Latin America;
- (b) that the federal government be commended for facilities it provides for the sale of forest as well as other products in export markets, that industry should avail itself more fully of these facilities; and
- (c) that consideration be given to reorientation or change in the structure of our forest industry to enable the products to be competitive on the world markets.

Technological Improvements

- (a) Every effort should be made to improve the technological level of wood using industries in order to permit them to utilize more effectively the results of research and thereby improve the efficiency of their operations.
- (b) In the sawmill industry improvement in marketing and methods of production should be encouraged to counteract the constant proportional decrease in the demand for lumber. Increased investigation should be made on progressive automation in sawmills and the conversion of low value wood into a series of more attractive and more competitive products.

Another point was discussed but the meeting failed to reach agreement on it. The statement as placed before the meeting was as follows:

Land Disposal Policies

Land disposal policies should provide for allocation for forest use, consideration being given to the ownership pattern of forest lands that will result in their most effective contribution to the total economy.

In support of this statement it was argued that land should be granted for forestry as well as for agricultural and other uses. In opposing this statement it was argued that grants of land by the Crown are not conditional as to the use to be made of the land and the Crown can control use of land only through leases or licences, as is now being done.

REVIEW OF FORESTRY - WORKSHOP B

What adjustments in management will be required to hold costs at competitive levels under pressure of greatly increased production requirements

The chairman invited the co-chairman to summarize the recommendations and conclusions reached by the group in its discussions during the Tuesday workshop. Brief reference was made to the five items of Tuesday's agenda after which the co-chairman presented his summary of the three topics discussed on Tuesday. The group clarified certain wording in the co-chairman's review and this summary is presented at the end of Friday's workshop report.

Concerning extensive and intensive management, the group pointed out the urgency for work to be started on studying competitive areas outside Canada and the factors affecting their competitiveness. One of the participants stressed that it was not just a simple matter of sending out salesmen to sell Canadian forest products, but that the economic climate of market areas and countries must be thoroughly understood.

Discussion then moved on to conclusions reached concerning harvesting and the increased mechanization of woods operations. A participant mentioned that mechanization not only had created problems for labour, protection and silviculture but also problems have been created for universities to acquaint students with new developments. The speaker felt that universities must recognize the problem and adjust their teaching methods.

In regard to protection, very little was added to the summary except that a number of participants again stressed the importance of items discussed, namely: (a) forest fire suppression; (b) education and research for prevention and suppression as well as the co-operation of the Department of National Defence; (c) access roads, and (d) pest control committees.

A proposal dealing with establishment of an Economic Advisory Committee, adopted in the Research "A" workshop, was clarified by the Forestry Workshop and included in its findings. Another participant stressed the importance of various forms of taxation and how it affects forest management and the competition position of the industry.

Research

During Tuesday's session and in reviewing the conclusions of the previous items on the agenda, the importance and necessity of research in forestry was frequently underlined. Therefore, the need for research with the development and proper management of our forest resource is fully realized. Consequently, the workshop accepted the general conclusions of Research "A" and "B" workshops and agreed on the establishment of a Renewable Resources Research Council by the national government, and the establishment of co-ordinating groups for each broad sector of research. Recommendations of the group concerning research in forestry appear in the conclusions.

Education

Initial discussion on this subject dealt with the extent to which a well-informed public is necessary in furthering progressive forest policies. The group decided that this was a very difficult subject but that some success has been achieved in forest fire prevention work. The group felt that greater attention was required in educating the public in forest policies and that means should be studied to accomplish this work. The group referred also to university training and the need for close liaison between industry, government and the universities.

CONCLUSIONS

1. Type and Intensity of Management of Forest Land

In order to establish the basis for decisions on the type and intensity of management on forest land, it is agreed that for the country as a whole:

- (i) Criteria of economic productivity be defined, taking into consideration such factors as productive capacity of land and access to markets.
- (ii) A forest land use classification be made in which these criteria are taken into account.
- (iii) A study be made of trends in social and economic pressures developing with regard to the use of forest land in Canada.
- (iv) A study be made of areas outside Canada that are competitive on the forest product markets of the world, and of the factors affecting their competitiveness.

It was agreed that the last item (iv) should be given high priority in any economic study program, to be undertaken and completed as quickly as possible.

In connection with this whole subject, the Workshop discussed and approved (with slight modification in wording), a proposal which had been approved in an earlier workshop, that a Forest Economic Advisory Committee be established. The details of this proposal are attached.

2. Forest Fire Protection

In view of the continued serious losses in timber and forest soil fertility through fire, strong support is urged for all programs aimed at improving this situation through education, research and other means. It was emphasized particularly that every effort must be made:

- (i) To reduce the incidence of man-caused fires through more effective education-information processes.
- (ii) To increase the effectiveness of basic fire control organizations in order to minimize the spread of fires that do occur.
- (iii) To develop further the co-operation and services provided by the Department of National Defence for the provincial forest services, and the co-operation between the forest services themselves in order both to deal more effectively with emergency situations and to help prevent emergencies from arising.

3. Access Roads Program

In view of the fundamental importance of roads in protecting forests from fire loss and also in making economically available stands of mature merchantable timber, it is strongly urged that the Access Roads Program, as sponsored by the federal government through the Department of Forestry, be continued.

4. Co-operation in Pest Control

Having in mind the successful functioning of the pest control committee of the British Columbia Loggers' Association, it is suggested that consideration be given by the proper authorities to the establishment of similar bodies within the other provinces.

5. Harvesting Developments

With the rapid development of equipment and techniques to aid in making mechanical logging more efficient, problems are arising that affect many facets of the overall operation including labour relations, forest protection, silvicultural objectives, etc. These problems require careful study and evaluation and to this end it is suggested that their occurrence and the associated problem of development be brought to the attention of the proper authorities for investigation and also to the appropriate departments of Universities for information.

6. Research

The need for research in connection with the development, management and proper use of our renewable resources is generally realized and strong support is given to the recommendations of the Research Workshops A and B with particular emphasis on the need for an authoritative body to develop and co-ordinate support for research in the Renewable resource field.

Furthermore, in order that the research needs may be met as effectively as possible, it is agreed that:

- (i) Much greater support be given to both university research and those wishing to undertake post-graduate studies through the provision of grants and fellowships.
- (ii) Much stronger lines of communication be established between (a) the various authorities engaged in research in the same general field (e.g. forest economics) throughout the country, and (b) those administering research and those requiring and making use of the results.
- (iii) For the information of universities in particular, an evaluation or priority rating be made of subjects or fields in which studies and trained personnel are most urgently needed.
- (iv) More attention be given to the stratification of qualified staff at the Universities in order that adequate provision may be made for research and the supervision of post-graduate programs as well as the teaching of under-graduate programs.

ECONOMIC ADVISORY COMMITTEE

The Conference has recognized in its deliberations the fundamental problem of rising costs in the forest industry and its changing competitive position in the world trade. The Forestry Research Workshop recommends that an Economic Advisory Committee be established, adequately representing industry as well as government and university specialists to explore those areas whereby co-operation could assist the forest industries in competing in world and domestic markets and to recommend those specific areas of economic study and research which would assist government and industry in the development of mutually effective short and long term policies for the forest industries and the economy.

REVIEW OF RECREATION - WORKSHOPS A & B

A - Providing an adequate resource base for public recreation.

B - Devising and implementing recreation programs for an effective utilization of renewable resources.

A combined statement of the two Recreation workshops to supplement the Tuesday report follows:

While the field of recreation is not exclusively preoccupied with the use of renewable resources, it does, increasingly, depend on access to renewable resources, and since decisions about resources are usually made on grounds that are not primarily recreational, although recreational implications are eventually involved, then recreation is legitimately a concern of all who make decisions about renewable resources.

We state the principle of the necessity of the presence of recreational program people at all stages of planning and development for the use of renewable resources.

Because many of the problems in this field are due to the multitude of bodies and government agencies concerned with recreation, one of the most urgent needs is to draw together the public services at the three government levels so that each provides a cohesive and balanced pattern of services in support of recreation. An agency devoted exclusively to servicing recreation is necessary at the provincial and again at the local level. An appropriate agency is desirable at the national level to give general focus to recreation, assistance to the provinces, to conduct research, and to make recommendations to the federal government.

To be sure that all legitimate program requirements are known to decision-making bodies, it is apparent that joint planning and co-operative action among all the people and voluntary agencies engaged in recreation should be attempted through the creation of recreation councils at the local, provincial and federal levels where both public and voluntary groups would be represented.

REVIEW OF WATER - WORKSHOP A

Organizing of multi-purpose development in river basins

The chairman referred to the discussions of the workshop on Tuesday and sought comment on the report as published on Page 26 of Journal No. 3, Oct. 24, particularly with a view to clarification of the report and to reach agreement on any additional points within the terms of reference of the workshop.

1. The group agreed to the report generally, but suggested the following amendments:

- (a) the final sentence of Section B of the earlier report should be amended to read, "In order to secure a sufficiently rapid expansion of markets to permit large scale economic hydro developments, reconsideration should be given to policy with respect to the export of electric energy"
- (b) the second sentence of Section C should be amended to read, "a willingness to cooperate in achieving optimum multi-purpose use of the water resource and adherence to conditions provided in water licences would be necessary,"
- (c) further discussion of public and private development agencies stressed the need for better communications between agencies to ensure full exchange of ideas and experiences,
- (d) the point was also made that when concessions are given for the use of water, whether public or private, such concessions should be covered by effectively administered control regulations, to achieve multi-purpose objectives in virgin or partially developed river basins, adherence to an overall plan is essential,
- (e) special reference was made to the two final paragraphs of the background paper "Effects of the Legislative and Administrative Framework" by D. W. Carr, Vol. 1, Page 139, in which Mr. Carr stresses the selection of particularly capable personnel as being the critical factor in achieving coordination,
- (f) with respect to organization, the workshop felt that regional differences made it impossible to set down a type of organization which would be universally applicable. However, the group approved the principles for organization as set down in Paragraph 2A of the report of Workshop B, River Valley Regions, Page 11, Journal No. 5.

2. On the question of the most suitable geographic unit for planning, development and management of water resources, the workshop referred to "Basic assumption guide lines for action" as reported in Journal No. 5, Page 11, River Valley Regions, B. 1 - was agreed that the guide lines adopted by the other workshop were pertinent to the planning and development stages, as well as to management of river basin projects.

3. "Federal-Provincial considerations" as reported in Section B, Journal No. 3, Oct. 24, of the report of this workshop, Page 26, was strongly reconsidered in an effort to more precisely reflect the views of the workshop membership. These views were restated as follows:

1. Since water resources are owned by the provinces, primary responsibility for development must be provincial.
2. Responsibility in cases of inter-provincial basins should be based in interprovincial cooperation.
3. The Federal Government has an obligation to provide encouragement and leadership to resource development (within the framework of the constitution) through monetary, fiscal, trade, and other economic policies.
4. Joint action by all governments through appropriate machinery to:
 - (a) create an awareness among the public for national need of water resource development;
 - (b) organize and finance water resource investigations; and
 - (c) adopt a well-defined long term policy with respect to financing of projects.

The chairman thanked those who had contributed background paper, those who had taken a lead in the discussions, and all who had participated in making the workshop a worthwhile effort.

REVIEW OF WATER - WORKSHOP "B"

Benefit-Cost Analysis

The discussions at this Workshop were centered upon a preliminary draft of a Benefit-Cost Analysis Handbook which had been prepared as an aspect of the research for the "Resources for Tomorrow" Conference. The draft handbook sets out procedures for analyzing the effects of resource development projects and for comparing them with each other. It shows that the approach of benefit-cost analysis can be very helpful in the decision-making process.

It was agreed at the Tuesday meeting of this Workshop that a guide to benefit-cost analysis would be very useful to agencies at various levels of government and to private industry and organizations as well. This point was emphasized in other workshops that have taken place at the Conference this week.

Following these discussions, it was recommended by the Workshop that a Benefit-Cost Analysis Guide should be prepared and published as soon as possible in both English and French editions.

It was agreed that the authors of the guide should take into account the suggestions offered by the participants of the Workshop in preparing a revised version of the document.

REVIEW OF WATER - WORKSHOP "C"

Achieving effective pollution control

The Chairman J. W. Spinks opened the meeting by stating that our purpose was to consider the various aspects of pollution control.

Water is one of the most important parts of our daily life and as population increases water gets more polluted. It works in an inverse correlation.

There are two effects of water control to consider:

1. Purity of water from a health standpoint.

Purity of water for efficient operation of industry.

We must also consider the economic aspects of the problem.

Today's panel will discuss effects of pollution on health, animal life, recreation and industry.

The Vice President John S. Bates stressed four aspects of pollution for study: quality, organization, human nature and practice. He stressed we must take a positive approach and clean up the water and not set stream classification standards which actually down-grade the water. It is necessary to avoid the danger of too much technology. You should look at the problem from a practical viewpoint and come up with the solution. He suggested that the probable answer would be a national organization.

Dr. A. E. Berry led off the panel discussion by asking what is pollution? He defined pollution as anything which spoils the quality of water. He stated we must not take the extreme position of either pure water or dirty water but must strike a balance between them. He spoke of domestic sewage as being most important because it was a possible cause of the spread of diseases and pointed out that industrial wastes and municipal sewage are the main cause of pollution.

R. J. Hull stated he would speak on two aspects:

1. Industrial use of water; and
2. Public apathy to pollution.

The industrial problem has two aspects; its complexity and the reluctance of industry to face up to the problem.

Originally we had large supplies of pure water but this is not so today and industry must adjust itself to meet this condition. If industry will not cooperate we must take stern measures. As the cost of pollution control is very high we must be prepared to spread it over a number of years.

Public Apathy

The public is not clean water conscious. They do not hesitate to dump any waste into the water. We must educate the public to the need for pure water. It is a problem which knows no political boundaries.

Mr. A. Lorne VanLuven discussed some replies to the recent Engineering Institute of Canada and the Canadian Institute on Sewage and Sanitation (now changed to Canadian Institute on Pollution Control) national survey. The survey showed the willingness of industry to co-operate; many groups advocate a Federal agency for co-ordinating all resource ideas, especially research, from coast to coast. It seems clear that industry would have no objection to much tougher policies or even to surcharge systems, if equitable, and on a country-wide basis, and provided industries are not placed in a non-competitive position.

The survey also pointed to the need for greater uniformity in our Water Rights Laws and better understanding of the hydrology of water resources. Most groups agreed to using some of the waste-assimilation capacity of streams, provided this is done with a full appreciation of the broad social needs of the public and in full recognition of sound long-range economic principles.

Dr. Gustave Prevost stressed the seriousness of the problem stating that once a stream or a lake became heavily polluted, in regard to a stream it was very hard to bring it back and in regard to a lake it was almost impossible.

In the discussion that followed the following points were emphasized:

1. We must use effluent standards rather than stream classification;
2. Industry, when using municipal sewage facilities must bear its share of the cost;
3. Public education is needed before standards can be set and enforced.
4. Quality objectives are advisable for the receiving body of water and such objectives should be related to local conditions and uses.

WHAT SHOULD BE DONE

Dr. Berry pointed out that it is necessary to have:

1. A clear knowledge of the problem
2. Public education
3. Cooperation between industry and municipality
4. Adequate legislation
5. Method of financing
6. Research

Mr. Hull pointed out that better results are obtained with industry by education and cooperation rather than by coercion, and that standards must be known to the new industries so that the necessary expenditures on sewage treatment can be included as a cost of production.

To achieve a better understanding from the public every means of communications should be utilized, television, radio, billboards, etc.

Mr. VanLoven, making further comments on the survey, said that there seems to be a well-recognized need for research. Many groups advocate the formation of a national advisory council and some think that there should be a declared national water policy. Other suggestions for improvement were: formation of a Model Water-use Act, co-ordination of all fundamental principles and adoption of effluent and stream standards properly formulated and co-ordinated.

Dr. Prevost mentioned that this work we are now doing must not stop at the end of this conference but must keep on.

He also mentioned that the Quebec Purification Board will require sewage treatment, the degree of which will be independent from the condition or the flow of the receiving waters, so that everyone will be treated equally.

In the discussion from the floor it was mentioned that Quebec was the only province to grant direct subsidies to the municipalities for sewage treatment facilities. New Brunswick has a formula by which the equivalent of 35 % of the carrying charges is assumed. The other provinces guarantee the necessary loan but do not aid financially.

It was also mentioned that the Quebec Purification Board was adopting a standard of treatment rather than a standard of effluent. This was considered to be an unique approach. The natural capacity of the receiving water to assimilate waste should be considered only after an adequate method of treatment has been utilized.

Regarding permits required from industries before they discharge wastes, Ontario does not issue such a permit but British Columbia, Manitoba and New Brunswick do.

RECOMMENDATIONS

Following discussions in the water pollution control workshop, this committee wishes to make the following recommendations:

A) To the Government of the Dominion of Canada

1. We wholeheartedly endorsed the setting up of a "National Resources Council" as recommended by the Prime Minister.

2. That a water pollution control division be included in the "National Resources Council" composed of representatives from the eleven governments.

This division should be empowered to:

- (a) Institute research programs
 - (b) Collect, collate and analyze water pollution control data from this and other countries.
 - (c) Coordinate water pollution control objectives for the eleven governments.
3. That the "National Resources Council" study water pollution control problems of a national character.

B) To the Governments of the Ten Provinces, the Yukon and the North West Territories

1. Each of these political units, which has not so done, should pass legislation setting up a water pollution control authority empowered to control and abate water pollution.
2. The duties and powers of water pollution control authorities in each of the political units should include the following:
 - (a) The study and analysis of individual problems regarding water pollution, from any existing source, in order to adopt a cooperative program to control pollution.
 - (b) The requirement that all new industry, municipalities and persons shall incorporate in their plans a method of controlling pollution.
 - (c) The duty of promoting and developing educational programs at all levels on water conservation and pollution control.
3. In these political units it is recommended that all matters relating to water pollution control shall be referred to the water pollution control authority.

REVIEW OF WILDLIFE - WORKSHOPS A & B

A - Maintaining adequate habitat for the production of wildlife population.

B - Maintaining effective utilization of wildlife.

Wildlife Workshops A and B met jointly and prepared the following recommendations for the Steering Committee.

Appraisal

1. It is urged that the Dominion Bureau of Statistics in consultation with appropriate Provincial and Federal wildlife authorities proceed at once to develop a definitive appraisal of the economic significance of the wildlife resource as it is related to recreation and other uses, consumptive or non-consumptive.

Land for production and use

2. An urgent problem of both supply and utilization of the wildlife resource is the continuing decrease in the amount and quality of land and water available to the resource. It is therefore strongly recommended that:

- (a) all governments of Canada recognize the urgency for now acquiring or designating land and water areas for the primary purposes of wildlife management and maintenance of access for public use and enjoyment and that such land must be set aside while it is still available and placed under the control of the department of government charged with the management of the wildlife resource;
- (b) inasmuch as the waterfowl resource is threatened by the continuing destruction of its natural wetland habitat, the special urgency for the acquisition, designation and management of such waterfowl habitats be recognized;
- (c) a positive program for the encouragement of the production of wildlife on private lands be undertaken by the appropriate agencies in cooperation with the land owners;
- (d) the wildlife values of Crown lands be recognized as a land-use value and developed, and that where leases or other forms of alienation are initiated or renewed, provision for wildlife management and access to the resource be provided wherever they are not inimical to the primary purpose;
- (e) a review be made of the present and the future Canadian needs for parks, wilderness areas and Wildlife refuges as well as ecological reserves for scientific study with respect to their suitability, distribution and policy.
- (f) federal and provincial governments review their policies with respect to the management of the large mammals and other wildlife resources that are not now being utilized for recreational purposes, in the northern regions that constitute nearly one half the area of Canada.

Economics of the fur industry

3. It is recommended that a board or commission be established which is truly representative of the fur industry of Canada, responsible for domestic and foreign market research, product development and quality, and product promotion, on a vigorous and continuing basis.

Legislation

- 4. (a) It is recommended that a Canada Wildlife Act, comparable to the Canada Forestry Act, be enacted under which the Canadian government can most effectively participate, in co-operation with provincial governments, in wildlife research and management, including the initiation, conduct, correlation and dissemination of research and its findings and provide funds for this purpose.
- (b) Where governmental co-ordination of complementary legislation is a requisite for wildlife management it is recommended that a very close liaison be in effect between the provinces concerned and the Federal government (e.g. control of aircraft entering, leaving and operating over areas frequented by wildlife; (Fisheries Act; Indian Act).
- (c) It is recommended that all federal and provincial legislation dealing with natural resource use have adequate provisions recognizing the value of Wildlife as a natural resource.
- (d) It is recommended that each government in Canada provide mechanisms for co-ordination of the activities of all departments and agencies of governments concerned with resource management.

Pollution

5. (a) There is actual and potential damage to the wildlife resource arising from the use of some pesticides, herbicides and various chemicals. It is urged that the problem be critically evaluated by all governments on a continuing basis. It is further urged that the use of such agents without prior knowledge of their effects on the ecosystem be discouraged. There is need for increased facilities for the detection and assay of chemical residues and the assessment of their effect on wildlife.
- (b) The Wildlife workshops endorse the principles expressed in the pollution recommendation presented by the Water Section and reported in Journal 4, Page 13, and recommends that the federal and provincial governments study, as a matter of urgency, the impact of pollution in its many forms throughout Canada; of the coastal waters, and of extra-territorial waters, and take appropriate action to control such pollution.

Research

6. It is recommended that wildlife research be strengthened and reorganized by the provision of:
 - (a) increased support research and postgraduate training at universities;
 - (b) increased support for research in departments of government, and private, professional and industrial organizations;
 - (c) co-operative research organizations among governments and universities where these are appropriate;
 - (d) more adequate opportunity for co-ordination and co-operation in inter-disciplinary research as well as that in individual sectors; and
 - (e) increased financial support of the National Research Council so that it may contribute more effectively to research in the biological sciences or, alternatively, that a research division of a Renewable Resources Council be established to serve a similar purpose.

Information and Education

7. (a) Because implementation of wildlife research findings is hindered by lack of public understanding and since appreciation of wildlife must be encouraged, it is recommended that information and education programs relating to the wildlife resource be intensified in schools and other agencies. Because there is an urgent need for the more effective distribution of the results of research, it is recommended that all governments be encouraged to provide more opportunity for the publication or distribution by other means of research information. Because many Canadian wildlife problems have relation to those of other countries and continents it is recommended that international co-operation, especially in research and the exchange of information, be encouraged.

Conference

8. Recognizing the value of the reviews, discussions and planning made possible through this conference, the Wildlife Workshops wishes congratulate those responsible for its conception, planning and conduct, and urges that similar or related opportunities be arranged periodically.

Appreciation

9. The Wildlife Workshops wish to congratulate the Secretariat of the Conference for the effectiveness of its preparation for the conduct of the Conference.

URBAN GROWTH AND RESOURCES - WORKSHOP A

Providing for urban growth without wasting agricultural
land and other renewable resources

A. Background

1. The Chairman introduced the session by stressing the purposes to review what has been achieved in workshops and bring forth needs which have been identified e.g. (Discussion on programme 26 October 1961)

- (1) Need for research.
- (2) Urban shadow and its effect on future food requirements.
- (3) Need for emergency measures to deal with critical situations (e.g. recreation lands, Niagara fruit belt).
- (4) Need for regional planning.

2. Dr. Shibeski was called, on the matter of loss of agricultural land, to clarify the group's discussion. He

- (a) challenged "surplus good" arguments.
- (b) was troubled about "irreversible" losses.
- (c) felt a false picture was presented due to land being liberated by loss of horses.
- (d) noted the tendency to underestimate land needed for livestock production.
- (e) was not worried about our capacity to feed ourselves in long-term; it is our duty to conserve good land to help feed the world as well as Canada.
- (f) stated increases in productivity were mainly effective on best land; it should be kept; the marginal land should be withdrawn.
- (g) opined that very soon such land will be essential.

3. The Chairman asked Dr. Shibeski about Prof. Van Fleet's viewpoint on surpluses. Dr. Shibeski stated:

- (a) we do not have now one year's normal carry-over of food.
- (b) another bad year like 1961 may make us unable to meet market commitments and might even make us importers.
- (c) Winnipeg has lost 20,000 acres in 5 years; we are now increasing the tempo of urban sprawl.

4. It was agreed the issue was a question of choice: we do not need to destroy valuable resources and if so we should not act thoughtlessly.

5. Possible effect on international economic position of Canada should be reviewed: lost of best land can only make us a higher-cost economy.

6. The present "natural" pattern of urban development are high-cost patterns already, being neither compact nor rational. Cities sprawl over areas far greater than necessary. An attempt to create new satellites might be beneficial for both the saving of good land resources and for the urban form itself.

7. Langlois' economic study of the urban shadow in Montreal indicated that 80% of the land removed from agriculture was held speculatively; significance of this for waste. It was agreed that the loss of waste of agricultural land due to urban growth is of great concern.

8. Individually operations in land development are "economic" to those directly concerned; but private gain is not necessarily public gain; the real social costs of development are hidden.

9. Recently in central areas the realization has spread that urban development can gain by concentration; this may ultimately apply in overall development. It was agreed that sprawl is a costly form of urban development and that research is needed to evaluate the real social costs of sprawl (Ref. example of research by Grerar).

B. Research

10. Scope of proposed national urban and regional research organization was discussed, (e.g. "Canadian Council of Urban and Regional Research ") involving:

- a) a "clearing-house" function.
- b) expanding general area of research.
- c) Disseminating data: (service function)
- d) aid existing institutions.

11. Concern was expressed over lack of facilities for training research workers in this field. We do not know enough about the actual processes of urbanization. The attitudes involved, the cultural processes, and the real needs, must be established in this greater context. It was agreed that there should be greater support for the universities in meeting this need particularly in the neglected social sciences field. There appears to be a lack of awareness of this need even among key people.

12. It was pointed out that if there are existing agencies or areas that can be helped this should be done (via CCURR).

13. Recreation land is recognized by the group as a national resource. Though not an exact science, guides and standards are needed to aid the whole field of recreational resource planning.

14. There is also a need for standardized comparable base notations and modes of presentation, collection and reporting of urban and resource research data.

15. It was agreed on the need to complete for major urban areas the land-use sheets produced under Dr. Nicholson's Geographical Branch. This is apparently not a costly programme, and would be of great value.

16. The workshop agreed that all government agencies connected with the collection and analysis of statistical information be requested to give unstinting support to the new CCURR.

17. There is a great need for a professional Cartography Research Committee to explore such questions as what data should be on mapsheets, what scales should be used for what purposes, what symbolism should be used.

18. The recommendation of the Research Workshop were endorsed by this group, including:

- (I) the co-ordination and acceleration of present federal, provincial, municipal and private survey and research activities in order to gather as quickly as possible information on the physical, socio-economic, cultural and political facts about land uses as affected by urban growth.
- (II) fuller use of existing government research agencies, facilities and programmes in attempting to remedy these deficiencies.
- (III) the establishment of an appropriate national agency to:
 - (a) collect and distribute the results of the various research activities of governments, universities, industries, research firms and individuals.

- (b) analyze and interpret information collected in order to formulate principles of land use.
- (c) stimulate research to help fill in the gaps.
- (d) provide research funds to universities to carry out pure and applied research (social sciences) as it pertains to urban land-use problems.

C. Emergency Situations

1. These fall into two main types:
 - (a) economic assets (Niagara fruit belt).
 - (b) recreational assets (e.g. wildlife resources etc.)
2. Possibility of loans from the federal -provincial to the municipal level to purchase recreational lands was suggested.
3. The problem is to provide in a very short period the sort of recreational opportunities much older societies have been able to add to their urban amenities over a very long period.
4. Need to examine means at national level to write-off the urban land values in areas which are needed for recreational or open-space uses. Essentially this is a compensation-betterment problem, which could be approached from the point of:
 - (a) outright purchase
 - (b) compensation for "freezing"
 - (c) leasehold means

D. Regional Planning

1. There is a need for the regional approach and for Regional Planning because of:
 - (a) relationship of uses.
 - (b) competition of uses for one resource.
 - (c) inter-action with local economy.
 - (d) relation between resource-use and community.
 - (e) relation between community and upper levels of government.
2. The workshop agreed on needs for:
 - (a) regional plans within provincial context.
 - (b) "strategy for growth" in such plans
3. Different areas have different needs. Nevertheless there are certain essentials; e.g.: constant and regular communication between the different levels and specialist disciplines involved.
4. Does regional planning exist ? Critical areas were examined:
 - (a) Montreal Area

Consensus of opinion was that planning does not exist there.

The province does not require or effect regional planning. Research is done by CMHC by default.

(b) Vancouver Area

The province does not act constructively. General research agency exists but co-ordination is difficult. A regional board exists with minimum staff.

(c) Toronto - Hamilton Area

Limited research; not co-ordinated. The province must take more action.

5. Essentials of regional planning

It was agreed that:

- (I) Survey and analysis should cover the area affected.
- (II) Results should be communicated to a body that can co-ordinate and put policies into effect.
- (III) Those responsible for implementation must be identifiable and responsible to the electors.
- (IV) Statutory authority must be provided.

6. Distinction was made between:

- (a) Regional planning which is building the city into the urban shadow (a strong executive function).
- (b) Regional planning in the rural areas which involves much more co-operative and correlated activity.

There was general agreement that regional planning in the most critical areas is far from adequate, and that there was a need for public, positive provincial action and statutory authority.

E. Provincial Planning

1. Provinces already tend to have plans for specific functions (e.g. highways). We must encourage the co-ordination of such activities (preferably at cabinet level) into one effective correlated provincial plan. The comment that we need goals at provincial level, that "regions will be politically evolved", was agreed by political representatives present. Provinces must use existing legislation to fullest effect in pursuit of national objectives.

F. Taxation and Assessment

1. The workshop agreed that the Tax Foundation should study taxation and assessment problems connected with urban growth and resources. This is a fundamental problem.

G. Information

1. The problem was recognized of getting data out to municipal and other officials. (Ref. p. 9, Bulletin No. 3).

2. Need was recognized for studies of public attitudes and preferences which again may be encouraged by the proposed CCURR. All forms of research bearing on the problem should be pursued.

3. Expanded function of A.R.D.A. was mentioned as being of interest.

4. Information of the availability of existing developed land must be widely disseminated and injected into the existing market machinery.

The group expressed their deep appreciation of the work of the Secretariat and of the leadership group.

RESOURCES FOR TOMORROW CONFERENCE

OCTOBER 23-28 1961

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